JOURNAL

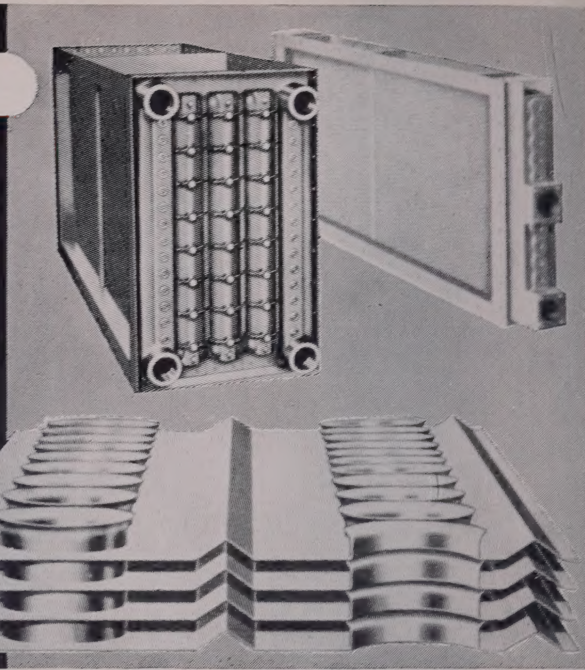
ROYAL ARCHITECTURAL INSTITUTE OF CANAD



VOL. 32
ORONTO
JUNE
1955
No. 6

*TRANE'S YEAR OF NEW PRODUCTS

NEW TRANE COILS FEATURE THE DELTA FLO FIN

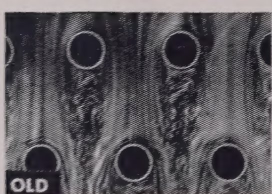


RESEARCH DEVELOPMENT INCREASES HEAT TRANSFER

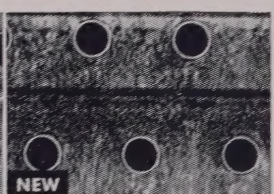
From the House of Weather Magic comes another great development of vital interest to all coil users . . . the new Delta Flo Fin. This new Fin is the result of intensive research by Trane, backed by more than 30 years' experience in coil construction.

The new Delta Flo Fin increases heat transfer by providing 20% more effective use of fin area.

TEST PHOTOS TELL STORY



Old Plate Fin. With flat fin design, turbulence is concentrated behind each tube as shown by this unretouched laboratory test photo. Since turbulence is concentrated, a large part of the fin area produces little heat transfer.



New Delta Flo Fin. Delta-shaped ridge just ahead of each row of tubes extends turbulence over entire fin surface for uniform heat transfer. Unretouched test photo shows how every inch of fin surface contributes to heat transfer.

This improvement is demonstrated by the two test photos showing how air turbulence over entire surface of fin is created by Delta Flo construction. This increases heat transfer qualities of the fin and permits wider fin spacing. Less power is required to move air through the coils . . . less tendency for dirt to accumulate in the coil . . . less dirt friction and more heat transfer.

The configurations of the Delta Flo Fin add strength and rigidity, reducing chances of fin damage.

It all adds up to a *better* coil . . . assuring *better* all-round coil performance for heating or cooling.

Delta Flo Fin is an exclusive Trane feature. Specify the new Trane Coil for top performance. New bulletins giving full details of these new Trane Coils for heating and cooling are available upon request. Write Trane for your copies today.

The Trend is to **TRANE**

***TRANE'S YEAR**
Trane are introducing a group of new products this year . . . Another reason "The Trend is to TRANE."

COMPANY OF CANADA LIMITED

401 HORNER AVE., TORONTO 14, ONT. BRANCHES IN ALL PRINCIPAL CITIES

Manufacturing Engineers of equipment for HEATING, VENTILATING, AIR CONDITIONING, REFRIGERATION

RAIC JOURNAL

Serial No. 358, Vol. 32, No 6

COVER

Oakville Park Terrace Apartments, Oakville, Ontario, *Architect, Michael Bach*
Photograph by Neider Photography

The Institute does not hold itself responsible for the opinions expressed by contributors

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

All correspondence should be addressed to the Editor

EDITORIAL AND ADVERTISING OFFICES, 57 QUEEN STREET WEST, TORONTO 1

EDITORIAL

We have met no one who did not enjoy the 48th Annual Assembly in Halifax. For its success, we must give full credit to our hosts because conditions for a conference were far from ideal. We shudder to think of an annual meeting in Toronto when delegates came by bus, taxi or train from those points beyond which air travel was impossible. Imagine, also, the Royal York enveloped in a fog for days on end – one of those eerie clammy fogs that recall London and Jack the Ripper. Imagine, too, the fog horns, and the irritation of those who arrived late for meetings or had two at the same period.

Frankly, we could not have handled such a situation. Halifax was notable, in our experience, for the spontaneity of entertainment, and a refusal to get flustered on the part of our hosts. In addition, we must all recall acts of kindness that will make Halifax memorable. We, for instance, confessed to an interest in Nova Scotia agates and lapidaries, and were taken immediately to the home of the high priestess of the craft where we spent a very enjoyable hour. We had always thought of pearl diving in Australia as a hazardous business, but we now place it second to the gathering of amethysts in Nova Scotia. It seems that fishermen have shown an increasing reluctance to being lowered by the feet over cliffs to snatch amethysts within their reach at a turning point of the tide. We heard this story from more than one person, and we remain puzzled by the method of lowering the men, and by the urgency and risk at the bottom. The men's reluctance would not be lessened if they knew that the Nova Scotia amethyst fades on exposure to light! Agates are gathered in a more leisurely manner. It is even a ladylike pursuit and the gatherer is not upside down. More than that, the beautiful agates of the Province are mostly permanent in their colouring.

When TCA informs you that you can go no further by air, it almost always happens that the rest of the journey is tedious in the extreme. It was not so with us who went from Montreal by train to St. John, N.B. by boat to Digby and from there to Halifax by bus. One will not easily forget the beauty of the drive through the Annapolis Valley with the apple blossoms at their best. Along the route, one felt strongly that this was historic country and that Upper Canada was some distance away. At the same time, we were personally disappointed at seeing so few fine colonial houses or even cottages. As a confirmed reader of the *Journal,* we know that such houses exist. They are just not on the bus route through the Annapolis Valley.

It may be that history and 'family' have been placed ahead of architectural beauty where preservation has been possible. The bus driver was a most intelligent and agreeable person who let nothing pass of any historical significance. Having gone to a school where Longfellow was not read, we felt awfully ignorant about Evangeline, but shared the bus driver's contempt for someone in Upper Canada who had implied, if he did not actually say, that Evangeline "never was".

We were disturbed, along with all who heard it, that a nice house with late nineteenth century decoration belonging to the family of Sir Robert Borden was to be demolished for lack of funds to keep it up. Sir Robert had not been born in the house, but had lived long in it, and rooms, furniture and pictures are associated with his life and time. We have no fault to find with the projected statue of Sir Robert which has been commissioned, but if we were asked to choose between the preservation of an historic house in a charming setting, and a statue in a frock-coat, we would choose the house. Posterity, we feel sure would be on our side.

On our return to Toronto, we were happy to receive a letter from Basil Spence. He writes with obvious joy that the site for the cathedral is cleared and work has started on the foundations. In his final sentence, he says "I think often of all the really happy hours I spent with Canadian architects, and I can truly say I enjoyed every talk I gave to them."

Planning for the Future

John A. Russell

I AM NOT A COMMUNITY PLANNER! It therefore becomes an honour as well as a privilege to have been asked to talk with you this morning about planning our future in this province. Like each of you, I am a member of the provincial community. Like each of you, I am concerned with action – what action should be taken and how it should take place. Unlike most of you, I am an architect; and, therefore, am ever mindful of the need for promotion and co-ordination of plans of action which will create patterns for community living which will enhance the life of every individual.

Each of us comes from some Manitoba community, either large or small, which, in every instance, has a past. Out of this past our community has developed a present pattern which, because of this past, may be judged today as good, bad or indifferent. Now does this community of ours have a future? If there were any doubts in any of our minds, those doubts will surely turn into buoyant, expectant hopes for a bright future as we listen later this morning to the Honourable R. D. Turner, Minister of Industry and Commerce. I am confident he will delineate for us a very real picture of practical possibilities resulting from the development of our resources and other potentialities. It becomes obvious that the future of industry and commerce in our province must have a necessary corollary in our future as individual citizens who, collectively, form the community. If the development of each of these communities is to be embraced within the overall development of the province, it becomes obvious that there must be individual planning for the future of each community.

I realize that I do not need to "sell" you on the need for immediate planned action to ensure the right future for each of our communities. Two years ago, at your Fourth Annual Conference held in Dauphin, Mr Byars, your Executive Director, made this statement in his report:

> ". . . I have become convinced that town and country planning activities must receive more important consideration in our municipal thinking. The trend in Manitoba today is towards greater industrialization and urbanization, and the unplanned growth of many Manitoba communities, due to the increased impetus towards urban living, is creating problems of a local nature in many places that could be overcome through proper planning and zoning. Consideration of planning methods now will reap economies for the future."

There may still be many in our communities, however, who will insist: "Well, isn't planning expensive? Doesn't it mean regimentation? Isn't it visionary and impractical?"

In answering the first question we have only to compare its cost with the cost of not planning. Billions of dollars worth of real values have been destroyed on this continent alone by the process of decay which occurs alike in cities, towns and villages. The choice is clear. Without planning, any community is bound to lose out. With sound planning, any community can better itself. Planning is not a matter of spending money, but of saving money as the result of wisely planned spending.

The second objection that planning results in regimentation can be denied vigorously, with positive evidence to the contrary. Instead of regimentation, planning means co-ordination, which is quite different – for this means co-operation in a completely democrative manner to serve the best interests of all the citizens. Planning provides a framework, not a set of immutable decrees. Such democratic planning will give plenty of room for individuality.

The third accusation that planning is visionary and impractical has no sound or reasonable basis; every successful business man plans. The larger the business, the greater the necessity for planning. And planning even a small community is big and important business – the business of figuring out the best way to get the best results with the smallest expenditure of effort and money.

Those of you who were present at the Dauphin Conference two years ago will doubtless remember the address on Community Planning in Manitoba given by Gerald Carrothers. The speaker, who was a graduate of our School of Architecture and was at that time engaged in a programme of graduate study and research at Harvard University, had just completed an intensive study of present practice and future prospects of community planning in the Province of Manitoba and was preparing an exhaustive report with recommendations for the special attention of members of the Government, officials and other interested persons throughout the province. Its threefold purpose was "(i) to indicate some of the essential features of the planning function and to suggest its ramifications and value in the development and administration of the communities of the province; (ii) to outline the most important of present powers of planning administration and implementation; (iii) to suggest weaknesses in the scope and utilization of these powers and to formulate proposals

whereby they might be made more useful and effective."

This report is now in its final mimeographed form and is waiting for the necessary funds to be published. We sincerely hope to be able to supply copies to each of you within a month or so, for we are convinced that it is not only a provocative document but a most valuable one because of the wealth of information and the well developed and sound recommendations contained therein.

The speech which Mr Carrothers made to you at Dauphin two years ago was, in effect, a summary of the principles, theories and recommendations contained in this 140-page report. As a springboard for my remarks this morning, I should like to quote the concluding paragraphs of his address, for they give us a very clear blueprint of planning for the future.

"Community planning can have a positive and profound influence on the future development of this province. With sensitive and intelligent application of community planning to our communities, it is possible to move toward the fulfilment of the fundamental purpose of community planning – the achievement of the best possible surroundings in which to live. Adequate and effective community planning activity involves the interrelationship of physical, economic, and social aspects of community development. The planning process by which these aspects may be analysed and guided can be described as the fusion of these recognizable phases:

1. the identification of goals and objectives,
2. the gathering and analysis of facts and trends concerning the community,
3. the preparation of operational plans and programmes,
4. the carrying out of such plans by administrative techniques.

The accomplishment of this process depends upon the conscious co-operation of all administrative officials in co-ordinating their activities and upon citizen groups serving the vital role or providing assistance and advice. Community planning is most effective when responsibility is centred directly in the local community. But there are many responsibilities which must be carried out at other levels and which require the active participation of all levels of government."

"Final responsibility and legal authority for community planning rests with the province. There is a pressing need for the province to review its responsibilities and functions in the light of broadened concepts of community planning. The following requirements would seem to be most pressing:

1. improvement of legislation related to planning,
2. co-ordination of provincial operations related to planning,
3. creation of a provincial planning agency,
4. integration of inter-municipal planning operations,
5. provision of adequate methods to carry out community planning.

Upon the acceptance by the province of such responsibilities depends the future sound development of community planning in Manitoba."

Here, then, is a blueprint for action complete with specifications which points the way for both the local and the provincial communities to build sound structures for living.

As far as I know every talk, every paper on the subject of community planning has included definitions and has proposed a programme for action through the understanding of principles and their application to the problems. For our purposes let us take these three definitions as the basis for the interrelated pattern of home, neighborhood, and community:

"A *home* is not a detached unit but a part of a neighborhood, which in turn is part of a town; and the good quality of the home usually depends at least as much on its surroundings as on its design and construction. Hence the vital importance of ground planning and control of the development of neighborhoods."

Thomas Adams

"A community is not just an aggregation of dwellings plus a few stores, nor is a neighborhood established by physical boundaries. A *community* is what the name implies, a group of peoples with a community of interests whether in work, politics, local pride, religion or ideals. A *neighborhood* is that area within which a spirit of neighborliness exists, and in which people do not feel strange. These feelings can be fostered by physical planning, but it alone cannot create them. If we are really going to rehabilitate our towns and cities, we must go far deeper than planning for safe side streets and protective greenbelts. Experience based on large scaled housing projects has shown that the physical environment plus good management can make a vital community spirit."

Henry S. Churchill

Since cities are for people, the prime objective of planning is to create safe, healthy, convenient and enjoyable places for people to live in, to have jobs, to bring up families, to have privacy, and to have community contacts. Planning starts with the people. People live where they can make their living. Accordingly, it is necessary to plan for industrial development and expansion and for trade and other economic activities.

After one has studied the people and the ways in which they can make their living, one has to plan for the conditions under which they want to live together. This planning will include a study of the services and programmes that favour healthy physical, mental and spiritual growth. It will mean the creation of an environment that stimulates interest in work and responsibilities, and gives satisfaction in living. To create the best possible pattern of living, work, and play, the physical plan should aim at the most efficient arrangement of places and services so that costs in money, time and movement are cut to a minimum; so that values and assets can be preserved; so that the advantages of community life can be fully realized.

These plans have then to be activated, and the programme of action should be as comprehensive as the plans. The campaign should be laid out in logical order, and the several fronts assigned to the public and private divisions best suited to attack them. Financial and legislative means must be organized. The process of putting the plans into effect calls for activities that should be shared by all the people.

Planning is for people. It is concerned then with the shaping and guiding of man's physical environment in harmony with his social and economic needs, and is aimed towards the securing of health, safety, convenience and general welfare; therefore, planning directly or indirectly embraces the whole field of man's activities. It is not things we are planning, but men. Property values, profits and losses on investments – in short, dollars – are secondary to people. In the long run, what is good for property must justify itself because it gives greater security, satisfaction, health and happiness to people. Both the values and the aims of planning are better and happier people.

Planning must be concerned with the social and economic community and not merely with the official boundary

limits of the municipality. If its proposals are to be based on the social, economic and physical needs of the people living in a region which is determined by business, social and population conditions and trends, then planning will involve the co-operation and co-ordination of the groups welded by common interests and conditions within a geographical region.

Statements like these which delineate the pattern and specifications for planning are a challenge to each of us to ascertain what we can do individually and collectively about formulating and initiating planning programmes for the correction and development of our own community plans. As an architect, it is not my role here today to tell you exactly how to plan for the future: my colleagues, the planners, are much better equipped to do that. My job is to talk about, and, I hope, thereby to stimulate first the desire to do something about the future and second, the determination to organize a programme of action.

As perhaps you know, an architect is trained to tackle any building or designing problem by first analysing and appraising the situation, then considering carefully all the elements and ideals which his client wishes and requires him to provide in the building, then solving the problem in a logical reasoned approach from cause to effect, producing the plans and specifications, and finally supervising the construction of the job. Your approach to the planning of your community's future might appropriately follow the same line of attack and development.

First of all, look at your community. What shape is it in? Perhaps this quotation would describe the situation:

> "Streets are either too wide or not wide enough — great areas of the community seem to be deserted and more and more properties are becoming tax deliquent — old buildings of all types which have long passed their useful years stand in dilapidated condition in many areas of the town — small stores off the main street are empty, and unless the town grows to be many times its present size, may continue to remain empty. If one tries to get from one part of town to the other, he may have to detour around areas where units of roads are missing from a once ambitious development scheme. If new houses are being built, seemingly they are on the very fringes of town while, at the same time, many of the lots along streets already developed stand vacant, and have been vacant since they were laid out years ago, perhaps decades ago. The railroad runs through the centre of the town, and when the train pulls in all traffic in that area is halted. A provincial or the trans-Canada highway most likely runs down the main street and, instead of bringing business and revenue to the community, brings only traffic problems, accidents, and headaches. The travellers on the highway hate to have to go through the town just as much as you hate to see them speeding through or adding to your traffic and parking problems. If there are local industries, they may be right in the midst of what could have been a good residential area. In approaching your town most likely the approach highway passes by all of the town or private dump grounds, scattered, dilapidated former lunch stands, and other outmoded structures. Certainly all the junk yards, auto parts yards, and every other unsightly area seem to have been put here to enhance the gateway to the city! If one were to stop at the city hall and take a look at the books of the town, maybe there too would be reflected the blighted and unorganized condition of the community. Each one can paint his own picture of his own town, and there won't be much difference between them."
>
> *Local Planning Institute — A.S.P.O.*

In a recent issue of The Community Planning Newsletter there appeared a highly provocative series of questions raised by Claude Smith, Director of Town Planning for Prince Edward Island. All of these related to planning problems of small communities in that province. Some of the questions posed were these:

1. Should our communities provide services such as electric lights, sewage disposal, water supply and sidewalks, in properly sub-divided areas, to encourage home builders to establish homes in these areas?
2. To what extent should we enforce our regulations with reference to buildings and lots established perhaps before our Planning Act came into effect?
3. Should we expropriate land for playgrounds and parks?
4. How are we to prevent the establishment of cheap, temporary living quarters which eventually become permanent through the owner's lack of money to build permanent quarters?
5. How can the communities be assisted in financing sewer and water services?
6. How much, if any, should the sub-divider pay for the opening and paving of streets and roads through their property?
7. Should regulations be made compulsory in all built-up areas including towns and cities?

Questions like these arise from the close scrutiny and analysis of our communities. Such careful consideration leads to the obvious questions: "What do we need in our community to provide for the improvement and continuous provision of amenities for family living, for work and for relaxation? What physical planning must we do, what plans of action must we programme to implement and achieve the desired results?"

The answers would appear to lie in a two-fold plan for action: 1) the local government's organization of citizen committees and experts to solve and correct existing conditions along with the pattern for future controls and action, and 2) the provincial government's implementation of enabling legislation, as well as a planning advisory service.

It follows, then, that your job and my job is to initiate action in our communities at once. Planning begins at home. Informed citizen groups should be organized which would participate in and support both the planning process and the plans for its implementation. Citizen planning organizations are particularly effective as they are not limited or controlled by political boundaries. They can also be effective in demanding and supporting adequate planning legislation. If, through such a programme of citizen organization, the whole community has been made aware of what is going on, has been properly informed in regard to planning, and has had a share in making the plans, then the translation of the plans into action will be greatly facilitated.

I expect some, perhaps many of you, are saying to yourselves: "We've heard all this before. It's all very well for the experts and the professors to tell us what we could and should do — but they never get down to cases. True we can organize committees, even enthusiastic committees. But who is going to take leadership? Who is going to guide us, tell us what we should do and how to do it?"

Admittedly these are difficult questions to answer. There is no readily available panel of experts in Manitoba to whom the small community can turn for free and unlimited advice and leadership. We sincerely trust that Mr Carrothers' report and its recommendations for planning action in Manitoba, to which I have already referred, will stimulate action on the part of the Provincial Government. Proper legislation and an advisory planning service would seem to be the logical devices for ensuring the proper planning and action at the local level. If and when the province recognizes this need and establishes a planning office staffed by trained personnel whose job it is to give advice, guidance and direction to the committee, then we can expect more enthusiastic and concerted action on the part of our local committees. Meantime, however, there are limited sources of information and informed personnel available for consultation and advice. In such universities as ours, where schools or departments have been established for the training of community planners, the graduate students registered therein and the staff directing their studies are always looking for actual problems to be tackled and solved. I know that they would welcome an approach from your community requesting the analysis and solution of some phase of its planning problems.

Similarly, too, there are a number of excellent guides, some published recently, which give easily understood directions for planning procedures and development. The Community Builders' Handbook[1] is one such publication. Another is Professor V. J. Kostka's new book on "Planning Residential Subdivisions"[2]. This book analyses for the busy practitioner the survey, design and development of residential sites in a very straight-forward, easily understood, manner. It is not a text book.

I should also mention the publications of the Community Planning Association of Canada[3], particularly the latest issue of "The Community Planning Review". In closing my part of this discussion I should like to quote a paragraph from this excellent issue:

> "Planning is as much an essential requirement in a well-organized community as are a police and fire department and an efficient garbage collection system. Cities and towns are living organisms. They can become infested with blight and they can be choked with congestion. Their orderly and symmetrical growth can be planned and directed or they can become stunted and cramped by neglect. . . Town and city planning is both an art and a science. It's more than plans: . . . it is the physical framework wherein and whereby the functional and aesthetic needs of an urban community can be made to blend with and facilitate its growth and development, and through which good urban living can find its finest expression."

Abraham Lincoln's Gettysburg address stated clearly the pattern of democratic government: "government of the people, by the people, and for the people". Does not the future of Manitoba, the future of our community, challenge each one of us to initiate planning *of* our community, *for* the community, and *by* that community — the community of our neighbors and ourselves?

1 "Community Builders' Handbook", published by Urban Land Institute, 1737 K Street N.W., Washington 6, D.C., at $12.00 per copy.

2 "Planning Residential Subdivisions", available at School of Architecture, The University of Manitoba, at $3.50 per copy.

3 Community Planning Association of Canada, 169 Somerset Street W., Ottawa 4, Ont. Membership of $3.00 entitles members to receive quarterly publication, "The Community Planning Review".

The above was an address given at the Sixth Annual Conference of the Manitoba Urban Association at Portage la Prairie.

Beauty in Nature and in Art

Part I

Cecil S. Burgess

Beauty cannot be discussed in relation to architecture alone. It crops up in so many other quarters—music, poetry and prose, and in craftsmanship of many sorts, that it tempts one to discuss its essential nature. To ask what is beautiful is like asking what is good. When the small boy is told to be good he understands in a general way what that means. He is to restrain himself from his natural interesting explorations and conform to the completely uninteresting wishes of his elders. He is to refrain from self-expression and express the will of a society of which he is not yet a full member and cannot comprehend. Perhaps when a client instructs his architect to design a beautiful building the architect feels like the small boy who is told to be good. He must refrain from self-expression and do what society will approve. He certainly would like to achieve some approval. He had better think what beauty means lest he be supplying quite another article, good though that article may be. Some writers on design avoid the word beauty because other qualities are more easy to discuss. Yet the word beauty is of common use; it means something very dear to the hearts of men and is surely deserving of some discussion.

There is a saying that "*beauty is that which when seen pleases.*" There is sufficient meat in this to afford some interesting pickings. It is not a definition of beauty itself, for beauty is a force—though a spiritual one—which, like the electric fluid, reveals or actualizes itself only when it meets the resistance of physical matter. The saying tells us something about the revelations of beauty. Beauty pleases when seen. The word is also applied to things heard or appreciated by the other senses. It is important to realize that beauty appeals strictly to the senses. In saying merely that it pleases we do not say enough, and if the saying suggests that it is the only source of pleasure it says too much. We can get pleasure from solving a mathematical problem or from devising a serviceable instrument or structure. That is an intellectual pleasure. We can also get much pleasure from an action or from a building, even an awkward one, which serves a good social purpose. That is a moral pleasure. We also get physical pleasure from the exercise of our limbs. What we get from a beautiful object is a satisfaction of the sense. This may seem to put beauty in a place inferior to intelligence and morality. It has, however, a quite essential sphere in human life because it is through the senses that we are introduced to all knowledge and through knowledge to all judgments of conduct whether these refer to our individual or to our social development.

Beauty does much more than please in the common acceptance of that word. It sets emotion in operation, it fulfils an appetite that is necessary for our mental nourishment. Seldom, if ever, does a work of art give satisfaction to the senses alone. The greatest satisfaction will be got when it gives also intellectual and moral satisfaction. It may exhibit only one or two of the elements that satisfy—beauty, intelligence, morality. One or other may be the dominating element. In the broadest sense a work of art is any work of man as distinguished from the work of nature apart from man. A work of art may have no beauty at all, although it may exhibit fine intelligence and sentiment.

We derive all our ideas of beauty, or of anything else for that matter, from our observation of nature. From childhood to age our eyes and other senses feed upon what nature presents. All visible objects stir our emotions and these emotions are of infinite variety. The special interest of Edmund Burke's "Enquiry into our Ideas of the Sublime and Beautiful" is that it points out the wide range of emotions that the senses arouse in us. The scale runs from the pretty to the sublime. Those that Burke calls Sublime are the rugged and the terrible. To the child these do not appeal as pleasant, but, as we grow older and in proportion to our health and strength, we enjoy them more widely. All go to nourish and develop our emotional character. This is the essential foundation of our knowledge and, through knowledge, of moral conduct; hence the poignancy of Milton's reference to blindness as "Wisdom at one entrance quite shut out." We rightly value the experiences of the senses because these are the gateway by which we may enter the internal universe of the mind and rise above material things.

Beauty makes its appeal to the senses. An object that is beautiful may act powerfully upon the intelligence or upon the moral sense or it may not. These have no part in its initial appeal nor can their judgment affect the quality of that first appeal. Our appreciation of beauty is by the senses alone and does not depend upon any judgment that can be made by our reason or moral sense. Of the beauty of things seen the eye is the final judge. It is common to think of judgment as a function reserved for intellect or for moral sense. The senses have their own sphere of judgment. The stimulant strikes the eye and a judgment

of approval or disapproval is made. Neither reason nor morality can override that without sacrificing the integrity of the judgment of the sense. It is in the nature of our senses to appraise value.

In this world we are placed in a scene that excites our wonder and admiration which our senses first appreciate. Through these knowledge begins, and by degrees we realize that in these scenes we ourselves have an important part to play. Our eyes are captivated by the works of nature.

The rainbow comes and goes,
And lovely is the rose,
The moon doth with delight
Look round her when the heavens are bare,
Waters on a starry night
Are beautiful and fair.

Birds in the air, beasts on the earth, fish in the sea are happy living things of which no tongue the beauty may declare. Through the centuries there is evidence, in our western civilization, of an extension of the joy that has been discovered in contemplating the scenery of this stage on which we are actors. The early Italian painters felt the value of introducing some slight background of trees as locating in nature the actions of the human beings on the moral teachings of which their attention was chiefly focussed. By the time of the great landscape painters a vast source of joy had been discovered in many varieties of scenery. The importance of everyday business diminishes in relation to its great setting. The theme becomes the entrancing effects of sunshine and shadow, mists and rain, the million tints and forms and textures that fascinate the eye. Turner's pictures of rugged Alpine scenery and of tempestuous seas indicate desires not only for sweetness and light but also for the extremes of roughness and of gloom. The actual appeal of nature to the eye existed long before human hands attempted to paint it. Poets, perhaps owing to the greater facility of their medium, celebrated nature's beauties long before painters did. Homer welcomed the dawn whose rosy fingers stirred the human world to renewed life, and Shakespeare tells us

Full many a glorious morning have I seen
Flatter the mountain-tops with sovereign eye,
Kissing with golden face with meadows green,
Gilding pale streams with heavenly alchemy.

Paintings—like other works of art—generally convey much more than sensuous impression. Turner painted the old ship the Fighting Temeraire being towed away for breaking up and we see it in the midst of a splendid sunset. We are moved to think of it as a mortal hero at the inevitable close of a long course of breathless battles. But the fact that the picture presents a glory to the eye first provokes attention. Before we can think, the eye has passed approving judgment. This judgment of the eye may be so strong as to overwhelm reason and morals. The Iliad of Homer has, as a background, the beauty of Helen. As the havoc and destruction of war increased the councillors of Troy met to put an end to the folly. That it should continue simply because that woman had run away from her husband shocked both reason and morality. They decided, therefore, that Helen should be given up. Just then sad Helen herself passed within their sight. They were silent, they held their breath, for she was "fairer than the evening air clad in the beauty of a thousand stars." When she had passed, they said: "Here is something immortal and divine, no wonder that mortal men are stirred to unreasoning war." So the war went on. Wars have been carried on for less worthy objects than beauty.

Whilst we get our ideas of beauty from seeing it in nature, it does not follow that we can or do create beauty in art simply by imitating the forms of nature. We discover beauty in work done in a certain way. When the philosopher Locke says that beauty consists in "a certain composition of colour and figure" he tells us what men, all the world over, have discovered in many ways. Certain arrangements of certain things appeal with delight to the senses. To design well is to arrange things so that they will make this appeal. What is the nature of these arrangements? That is what we have to discover in every case. Men's first efforts are to provide for the necessities of life, food, clothing, shelter, warmth. Physical labour and intelligence are all that are required for this. Intelligence can ease labour and increase its results. Moral conduct brings men into societies and co-operation. This, too, multiplies the effect of labour. No matter how much we multiply the results of labour we still lack a great element of satisfaction. In realizing that beauty can be a quality of human work men discovered an entrance to a world above that of physical satisfaction, a world of infinitely varied and controlled emotion. Since man first appeared upon earth he has also sought for beauty, the satisfaction of the eye. The fundamental beauty of barbaric work still appeals to us. We endeavour to bring beauty into our various buildings and long to bring it into the design of our cities as unities. The idea that the work of our hands can be made beautiful is originally aroused by seeing beauty in surrounding nature. The things that men require to make for their subsistence are totally different from the works of nature. They cannot achieve beauty by imitating nature's works. But in the process of making their needful works men discover that beauty can be introduced. The laws that govern natural beauty are the same as those that govern artificial beauty and these are mathematical. This is not consciously realized. It is a natural impulse, arising from the nature of things and of men. It took mankind a long time to define the laws of gravitation, but men were making use of it from time immemorial. Each growing plant has a definite arithmetical system of its own. These laws are hidden in the complexity of nature's operations. Even the most primitive races found that mathematical arrangement was the key to beauty, to the satisfaction of the eye. Order is a need and order is a mathematical idea. To put things in a straight line is the beginning of order, just as the idea of a straight line is the beginning of the study of geometry. It is an easy idea to work to for the eye can judge of straightness without the aid of any tool. The circle is also a simple order-producing form and can be traced with very simple tools and, with some approximation, without any. The approximation is more important in producing beauty than precision. In nature, the exactness of geometrical form is almost always diverted by interfering circumstance.

Unsophisticated peoples delight in decorating implements with geometrical patterns and succeed well, al-

though their lines are not truly straight and their circles waver considerably. There is a positive gain in this freedom from rigidity. The hand-drawn "straight" line is more pleasant to the eye than one that is guided by the straightedge. Even if the pulsations escape the eye they are there and have their effect. There can be little doubt that it was for this reason the Greeks introduced so many subtleties in building the Parthenon. The long horizontal lines are all slightly curved. The entases of the columns are curved. The spacings of the pillars are slightly irregular. Whatever reason may be assigned in each case, the general reason is that mechanical rigidity displeases the eye, it seems unnatural. The first works that men have to attend to are defences against nature which at first appears as an enemy to man. His first work, therefore, is not imitation of nature but actually contrasts with nature. This includes the early forms of architecture. When forms of natural objects are employed it is for symbolic purpose and they have little accuracy of representation. They are artificial forms made with only sufficient resemblance to suggest the object and rather a predominant characteristic of the object than its actual shape. The aim is delight to the eye even when creatures are represented of terrible form. It is quite pleasing to view a terrible object when you are quite sure it cannot do you any harm. A tiger is very beautiful — behind the bars.

A work of intelligence is not necessarily a beautiful one, nor is a work displaying goodness of character. Neither of these stir the appetite of the senses as beauty does. Beauty prepares the mind for both. It does not rouse to immediate thought or action. It cultivates the ground out of which these grow. Aristotle tells us that the drama, by fictitious representations arousing pity and fear, purges these emotions in us. It creates in us moods of sympathy with the happenings that befall mankind, thereby educating us to meet these occasions in real life more wisely. This benefit is bestowed upon the simplest intelligences and the simplest consciences. It is this cultivation of the sympathies that is the chief end in art. It is thus the gateway of higher culture and civilization. It might be supposed that emotion can have no place in the calm field of architecture. In reality it permeates it. The ancient Greeks were a people in a perpetual ferment of enterprise in commerce and in rational speculation, yet they felt it above all things necessary to have as a central feature in every community a calm and steadfast temple endowed with all the beauty with which they could enhance it, as a perpetual monitor and guardian of those interests that are divine and immortal. It recalled them to a mood that they were all too apt to forget. The same may be said not only of the great medieval cathedrals, but also of every smallest church that was built during that period. R. L. Stevenson expresses this with charm and insight in writing of Noyon Cathedral:

> "I find that I never weary of great churches. It's my favourite kind of mountain scenery. Mankind was never so happily inspired as when it made a cathedral; a thing as simple and spacious as a statue to the first glance, and yet, on examination, as lively and interesting as a forest in detail. The height of spires cannot be taken by trigonometry; they measure absurdly short, but how tall they are to the admiring eye, and where we have so many elegant proportions, growing one out of the other, and all together into one, it seems as if proportion transcended itself and became something different and more imposing. I could never fathom how a man dares to lift up his voice in a cathedral. What is he to say that will not be an anti-climax? For though I have heard a considerable variety of sermons, I have never yet heard one that was so expressive as a cathedral. 'Tis the best preacher itself, and preaches day and night, not only telling you of man's art and aspirations in the past, but convincing your own soul of ardent sympathies, or rather, like all good preachers, it sets you preaching to yourself — and every man is his own doctor of divinity in the last resort."

Every building should have an air of its purpose whether of domesticity or of public or other service. It should impress a mood.

The works of man are not necessarily accompanied by beauty. Disorderly operations are unlovely. Slums, smoke, dirt and noise are offensive. Mining operations have often thrown up trash heaps that defile the landscape. These may be motivated by goodwill to men, but that is not enough; the appetite for beauty must not be starved.

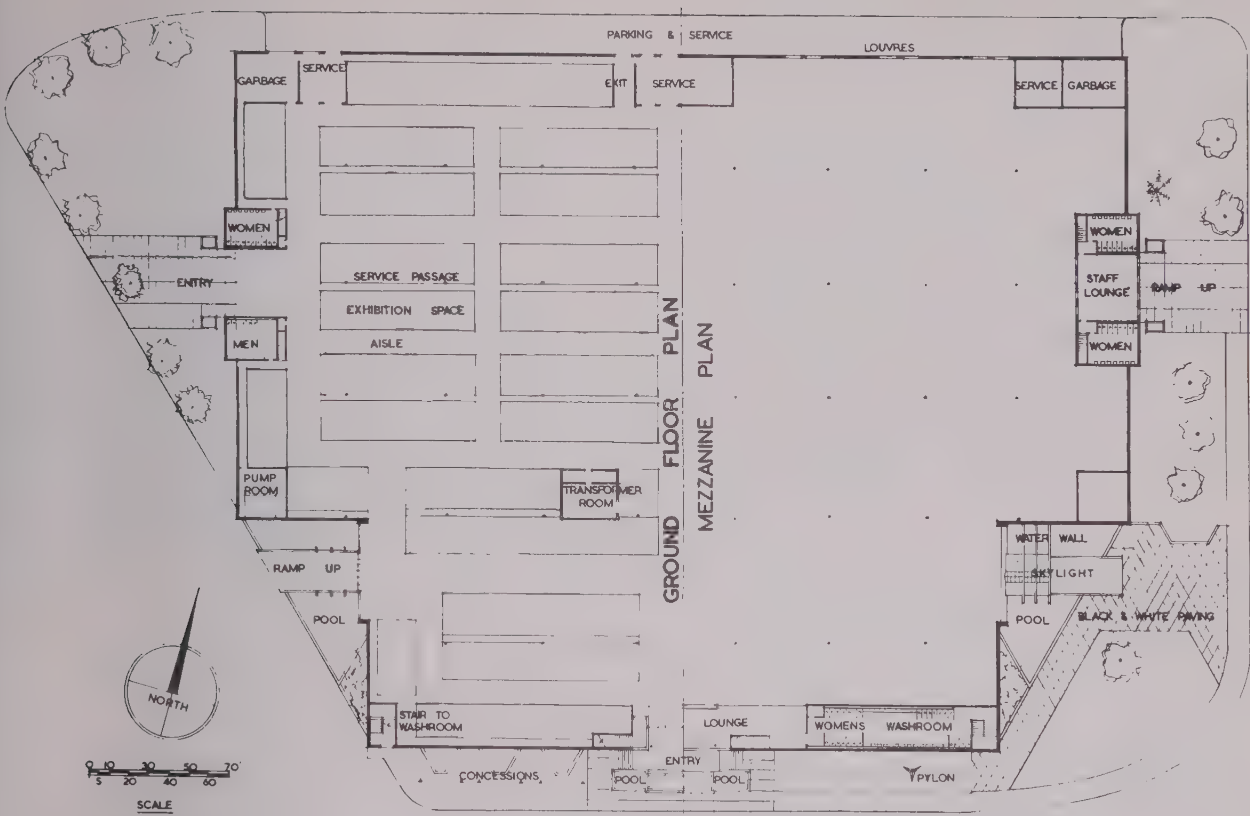


HUGH ROBERTSON — PANDA

West waterwall entrance showing waterfall over sloping window



The front entrance
Bronze sculpture by Jean Horne



Food Products Building, C.N.E.
Toronto, Ontario

Architect, Richard A. Fisher

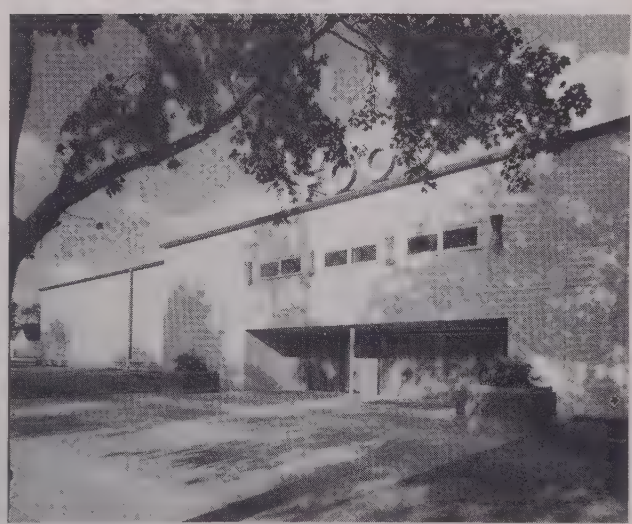
Structural, Wallace, Carruthers & Associates Ltd.
Mechanical, H. H. Angus & Associates Ltd.
General Contractors, Bennett-Pratt Ltd.

General view



JONES & MORRIS

West entrance

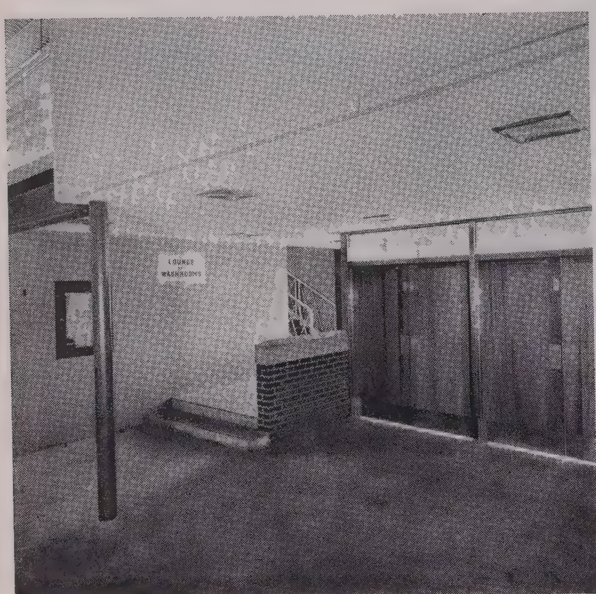


HUGH ROBERTSON – PANDA



RICHARD MATHEWS

Public washroom



HUGH ROBERTSON – PANDA

South entrance, interior



West waterwall entrance

CINESOUND LTD.



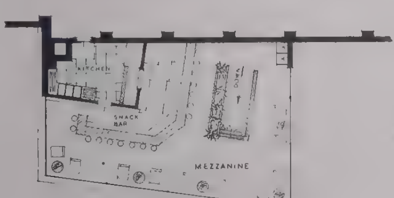
O'Connor Bowl, Toronto, Ontario

Architects, Parrott, Tambling & Witmer

Structural, Wallace, Carruthers & Associates Ltd.
General Contractors,
Foundation Company of Canada Ltd.



FIRST FLOOR PLAN

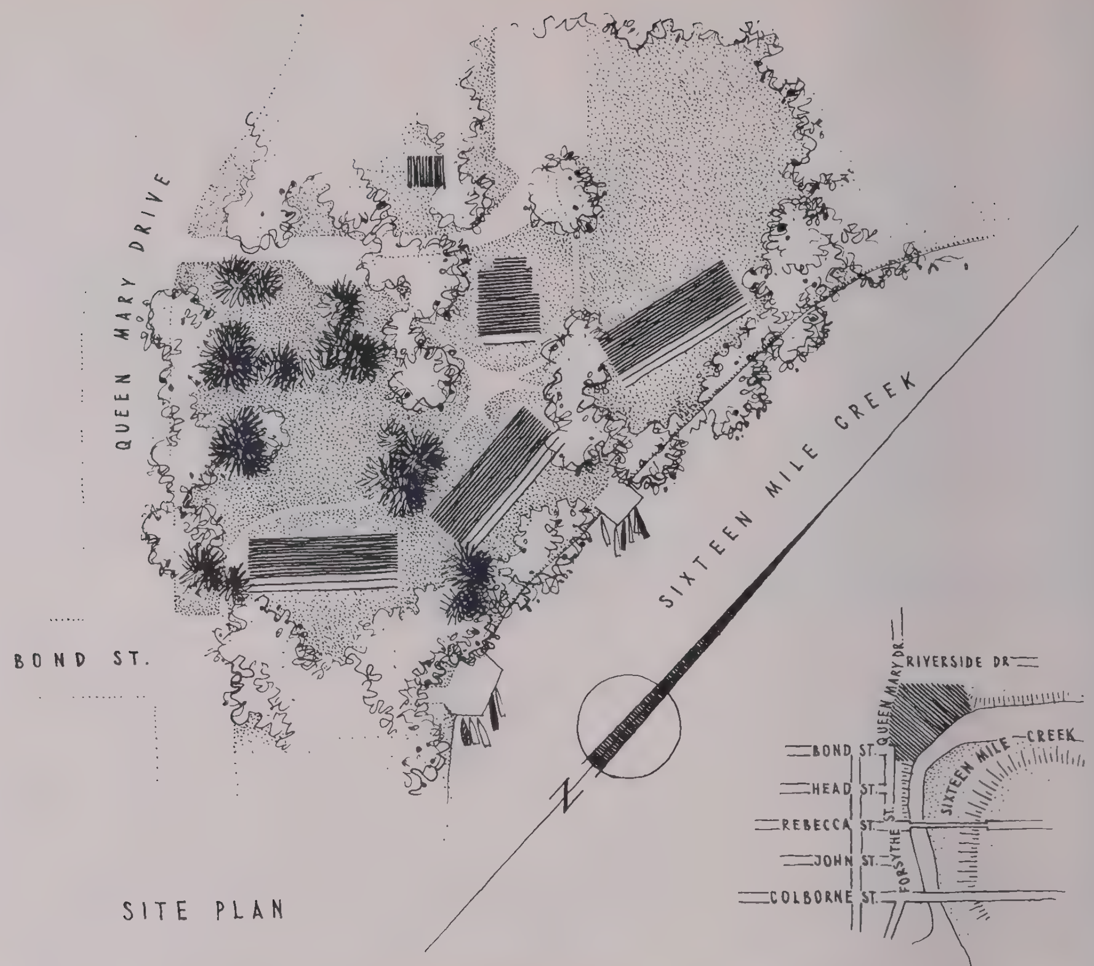


MEZZANINE PLAN

This building was erected at a time when structural and reinforcing steel were under control, a permit to proceed was issued provided steel was not involved. The clear span was obtained through use of built-up wood trusses and the piers supporting the trusses were poured of bulk concrete (without reinforcing).

There is a partial basement under the centre portion to provide space for boiler room, electrical room, pier repairs and small club room.

The building is air conditioned through a Trane Climate Changer, heating during winter season and cooling during summer operating period.

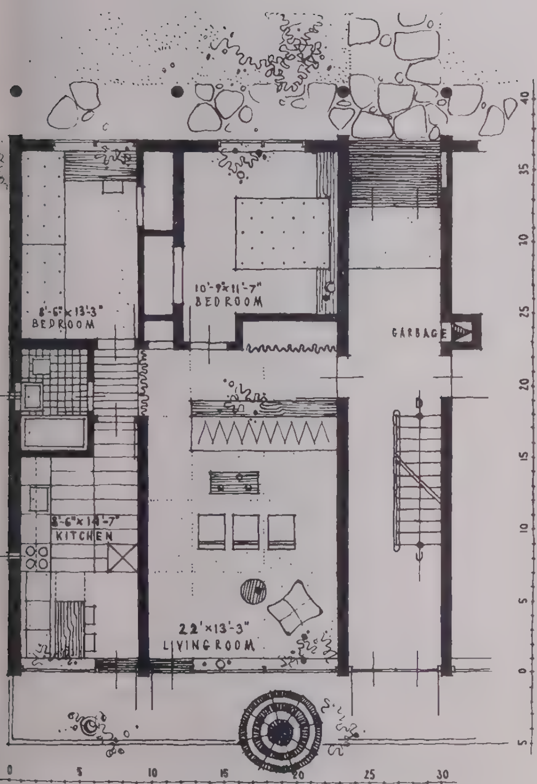


Elevation overlooking river





ENTRANCE

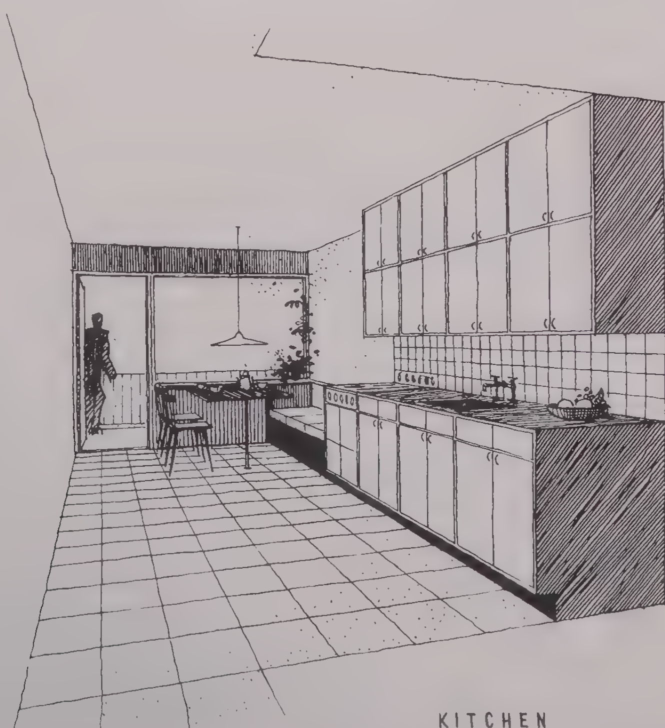


TYPICAL FLOOR PLAN

Oakville Terrace Apartments
Oakville, Ontario

Architect, Michael Bach

Cost—$7,000 for 2 bedroom suite
4.7 acres of land



KITCHEN



NEIDER

West elevation



Living room

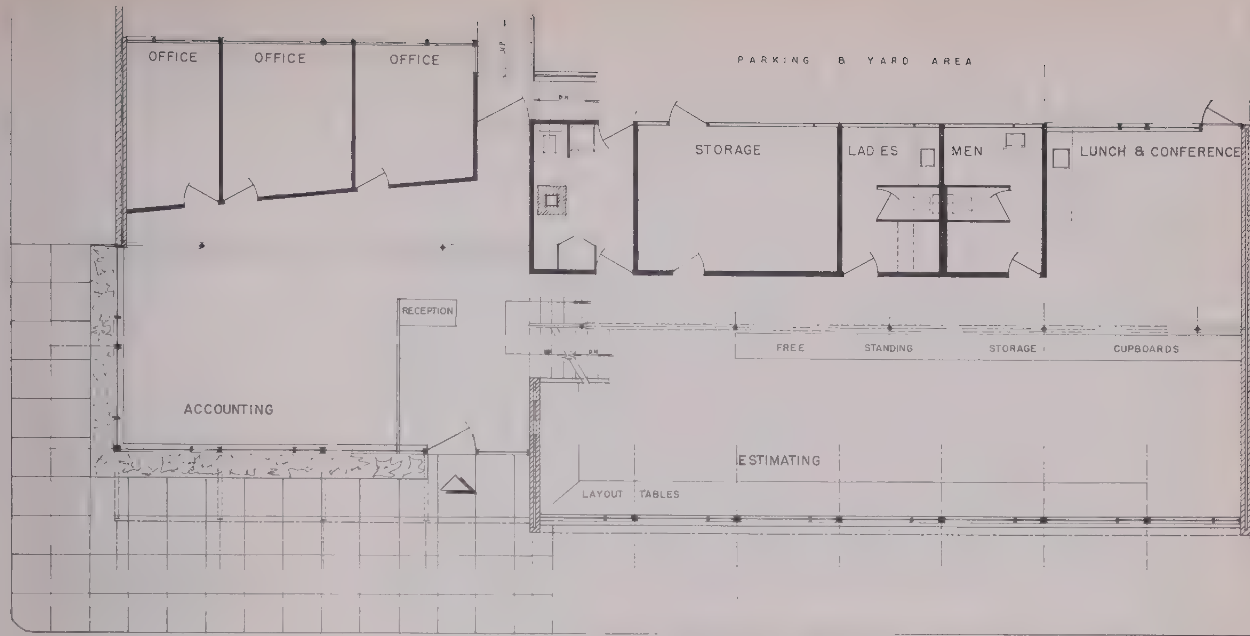
South elevation



Dining area



NEIDER



Baynes and Manning Office Building
Vancouver, British Columbia

Architect, Donald M. Manning

General Contractors, Baynes and Manning

The Baynes and Manning office building was built in 1953 to provide head offices for the owners. The company required a storage yard for construction equipment, office space for executives, accounting and estimating, and space for future expansion. The site is slightly sloped and borders on a residential area. In splitting the levels the estimating is partly secluded from the accounting and a third area is segregated for rental space.

The structure of the building is wood frame with interior steel beams and posts. The base walls are hollow cavity or brick veneer. The upper walls are stained vertical cedar siding. The floors and ceilings are joist construction and the overhangs are wood beams and yellow cedar planking. The aluminum window frames overlay solid wood mullions.

HARRY CANTLON



View of executive offices

View from the north-east



PARAMOUNT STUDIOS



Detail of lower storey in green Scotstown granite

The Crown Life Insurance Company Head Office Building, Toronto, Ontario

Architects, Marani & Morris

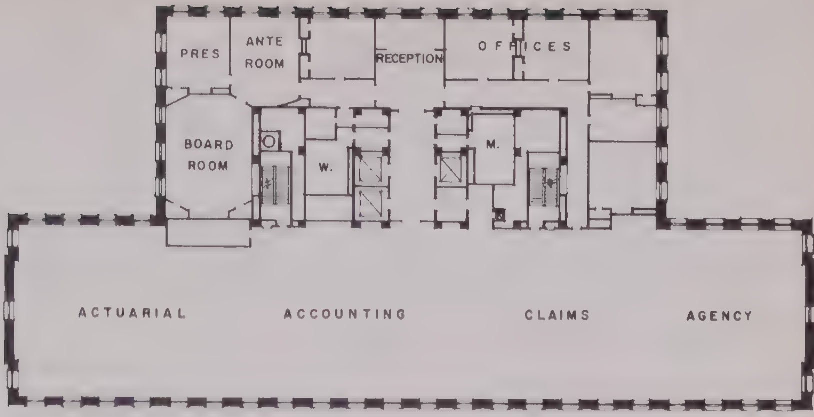
Structural, Wallace, Carruthers & Associates Ltd.
Mechanical, H. H. Angus & Associates Ltd.
General Contractors, Pigott Construction Co. Ltd.



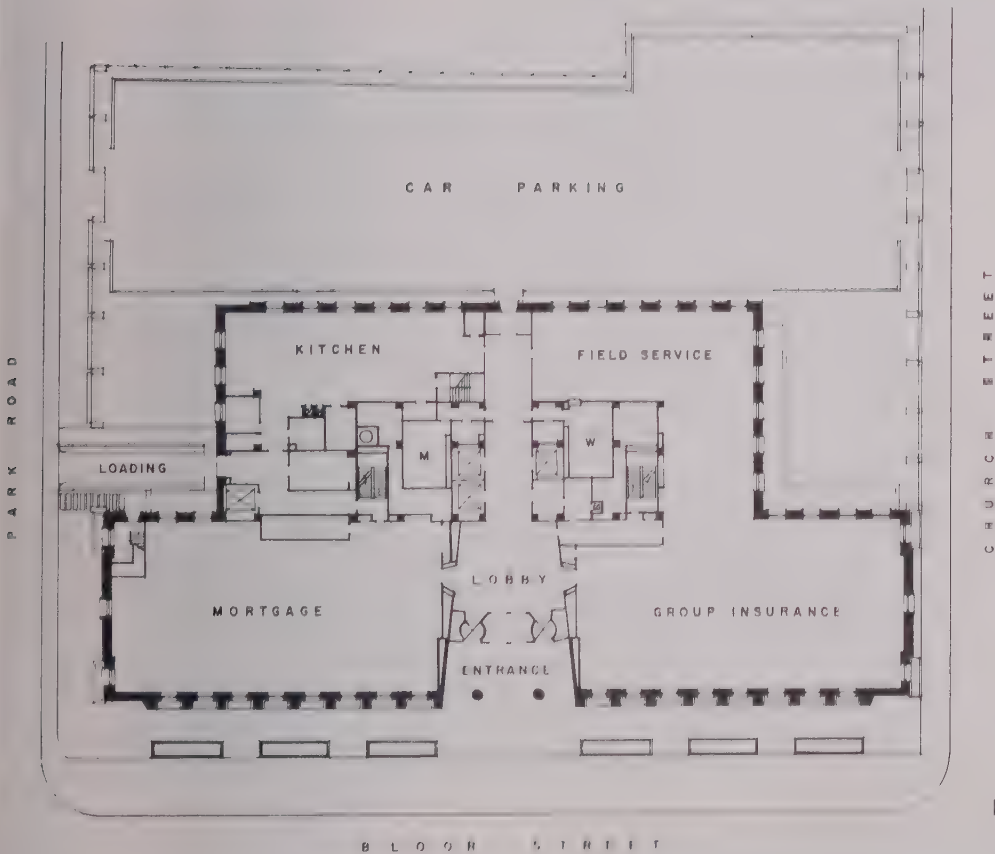
The main entrance



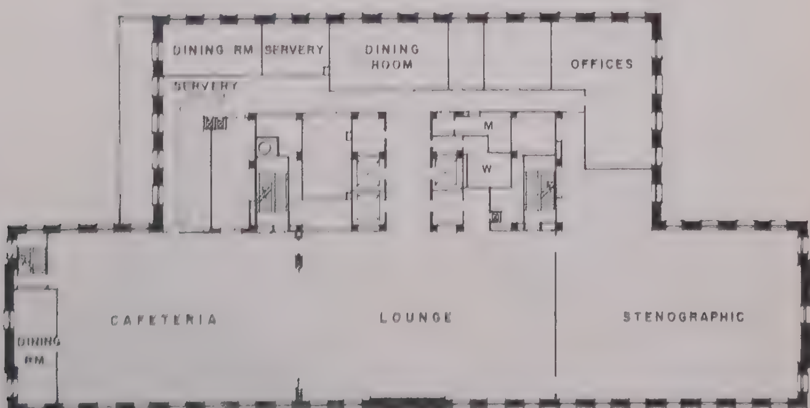
View from the south-east



Seventh floor



First floor



Second floor

SCALE 1/32" = 1' - 0"



Lounge and cafeteria



WARNER BROS

Entrance to executive offices



General office area

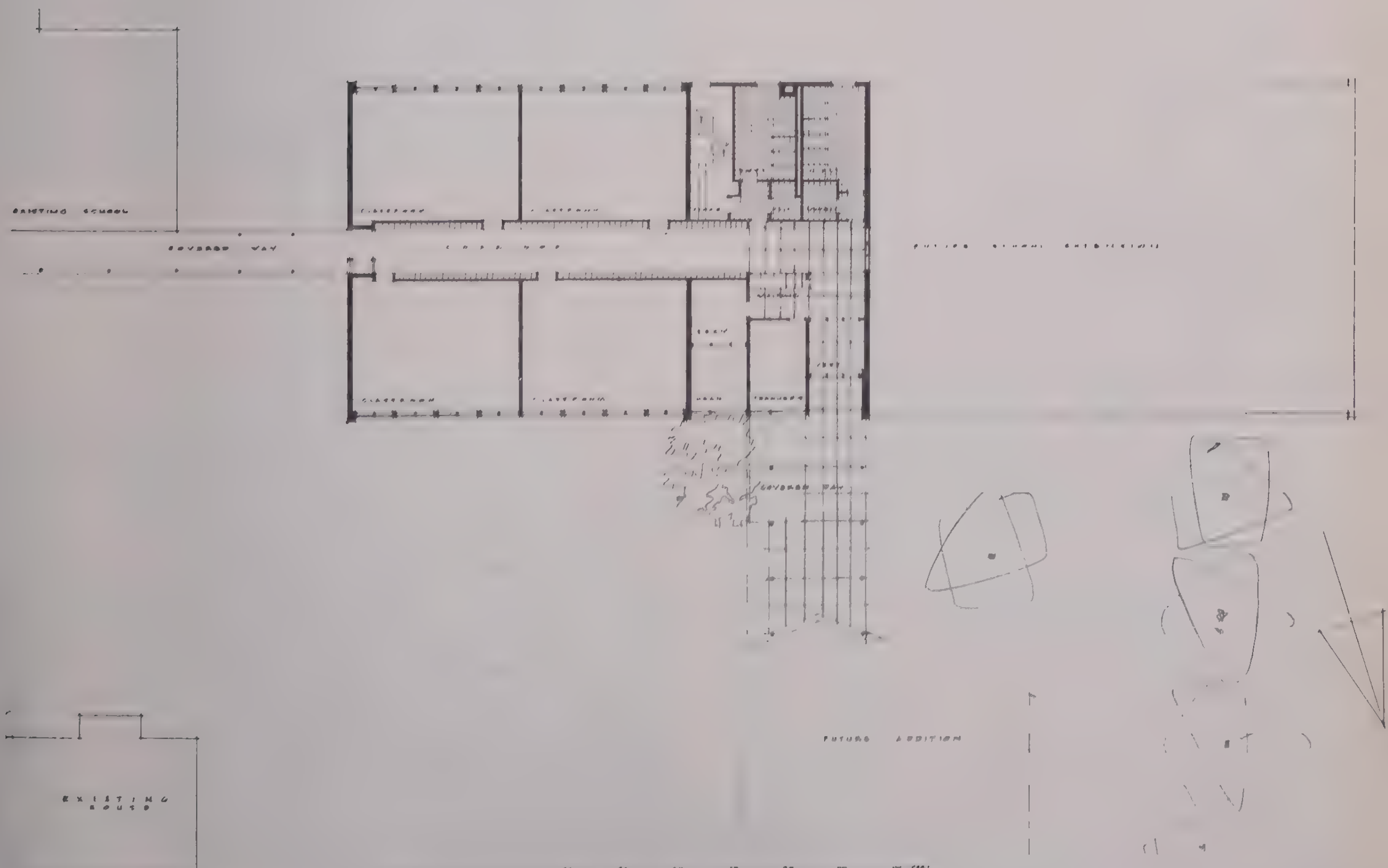
Covered way to corridor



Rockway Mennonite School, Kitchener, Ontario

Architect, James A. Murray

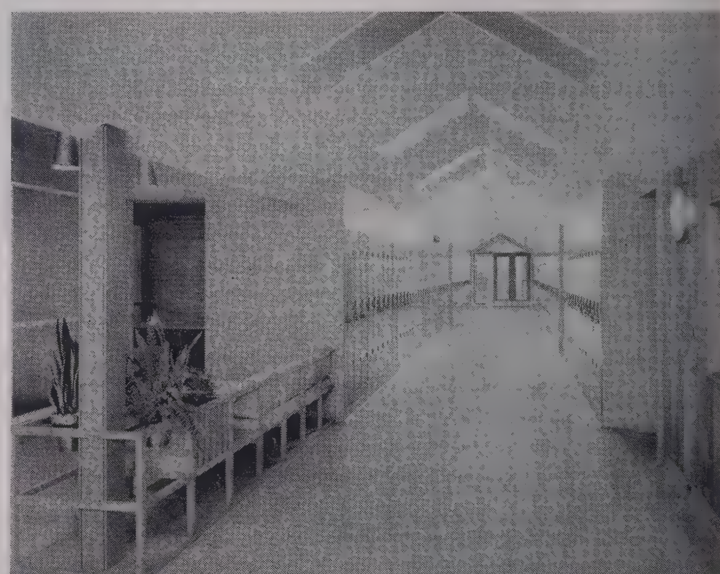
Mechanical, W.A.E. Frost & Associates
Electrical, Dodington, Henderson & Chisvin
General Contractors, Dunker Construction Company Ltd.





Waiting area

Corridor from waiting are

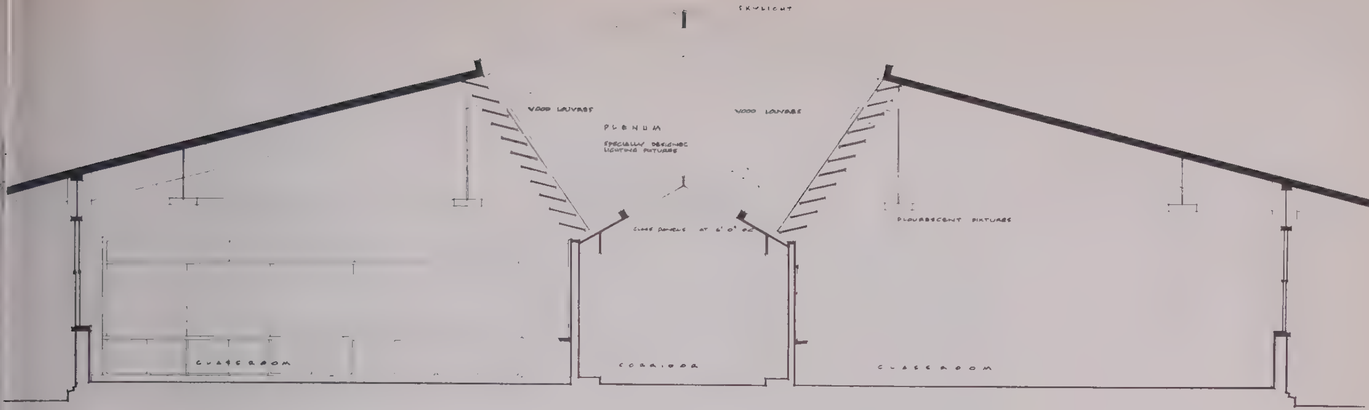


Covered way to main entrance



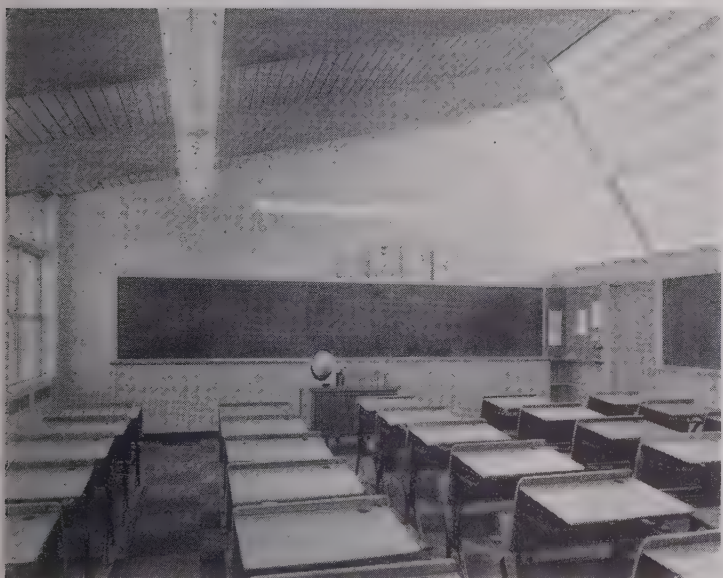
The main entrance





Classroom section
showing daylight and artificial lighting

MAX FLEET



Typical classroom

Classroom showing wood louvres



A large skylight is centred over the corridor, extending the full length of the classroom wing and admitting daylight into a lighting plenum. From here the light is directed to serve classrooms on either side of the corridor and to light the internal corridor itself.

A bank of continuous louvres separates the light plenum from the classrooms. These louvres are calculated with fixed slats to direct daylight across the room with particular reference to the corridor side of the class. The corridor ceiling is sloped to give maximum skyshine on the louvres.

Artificial lighting in the plenum lights the corridor at night through the same glass slits that serve for daylight. The plenum can serve as a cross ventilation device.

Ceiling heights have been dropped without light sacrifice and with improved appearance in relationship to the scale of children.

Existing trees on the site were utilized to reduce sky-earth contrasts.

The main front



Semmens and Simpson Office Building
Vancouver, British Columbia

Architects, Semmens and Simpson

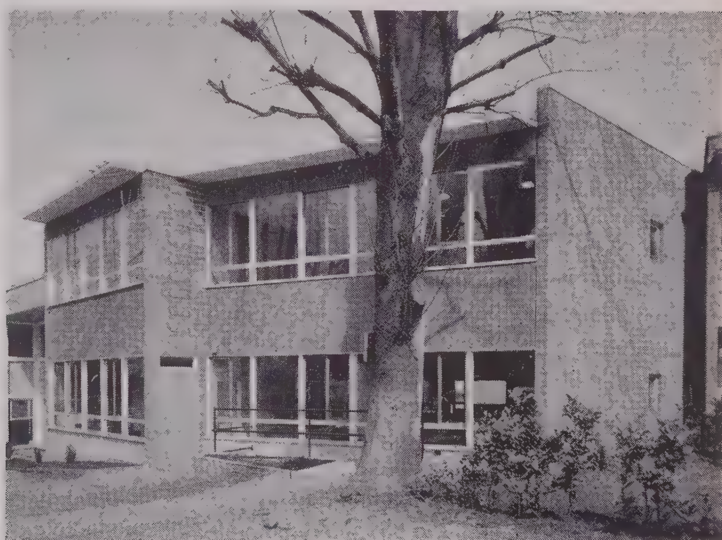
General Contractors, Narod Construction Co. Ltd.



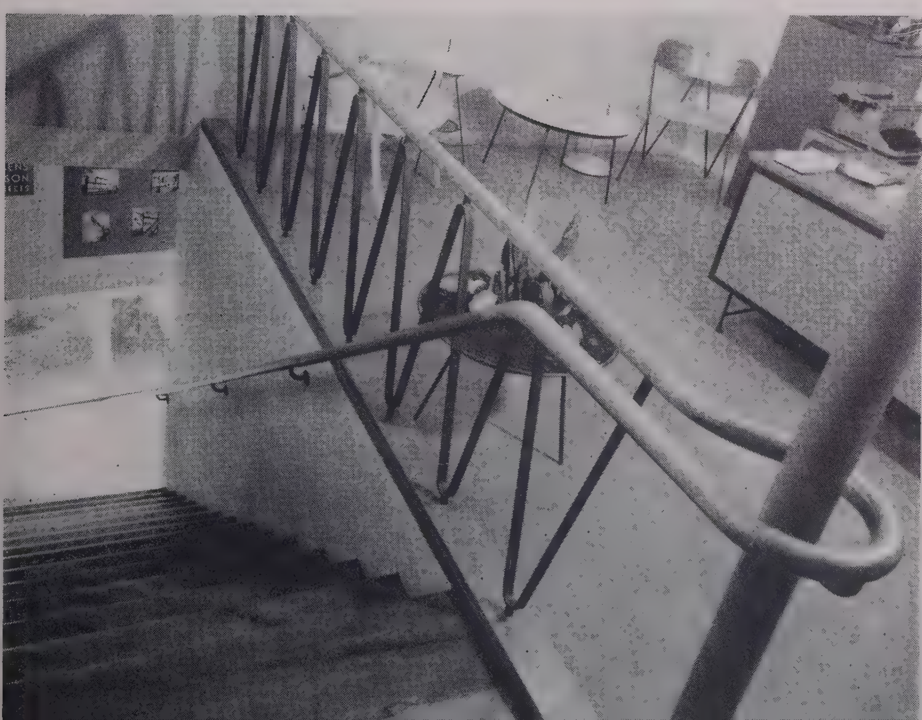
Ground floor



Second floor



The rear elevation



GRAHAM WARRINGTON

View from the secretary's office



Pender Street elevation

Office of Percy C. Underwood
Vancouver, British Columbia

Architects, Underwood, McKinley and Cameron

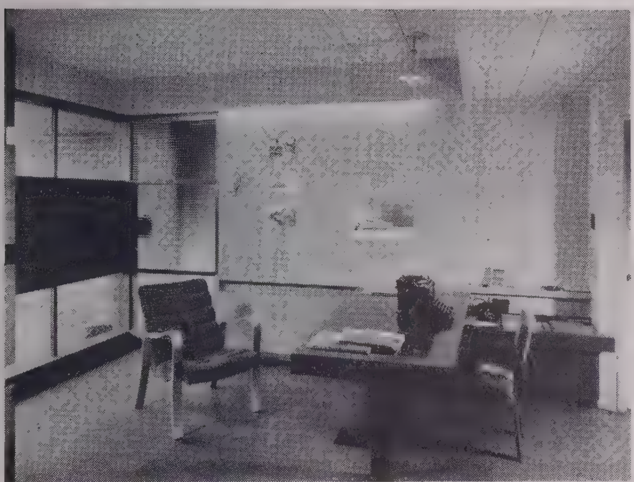
Mechanical, Swanson & Reeve
General Contractors, E. W. Cross & Son



Melville Street elevation

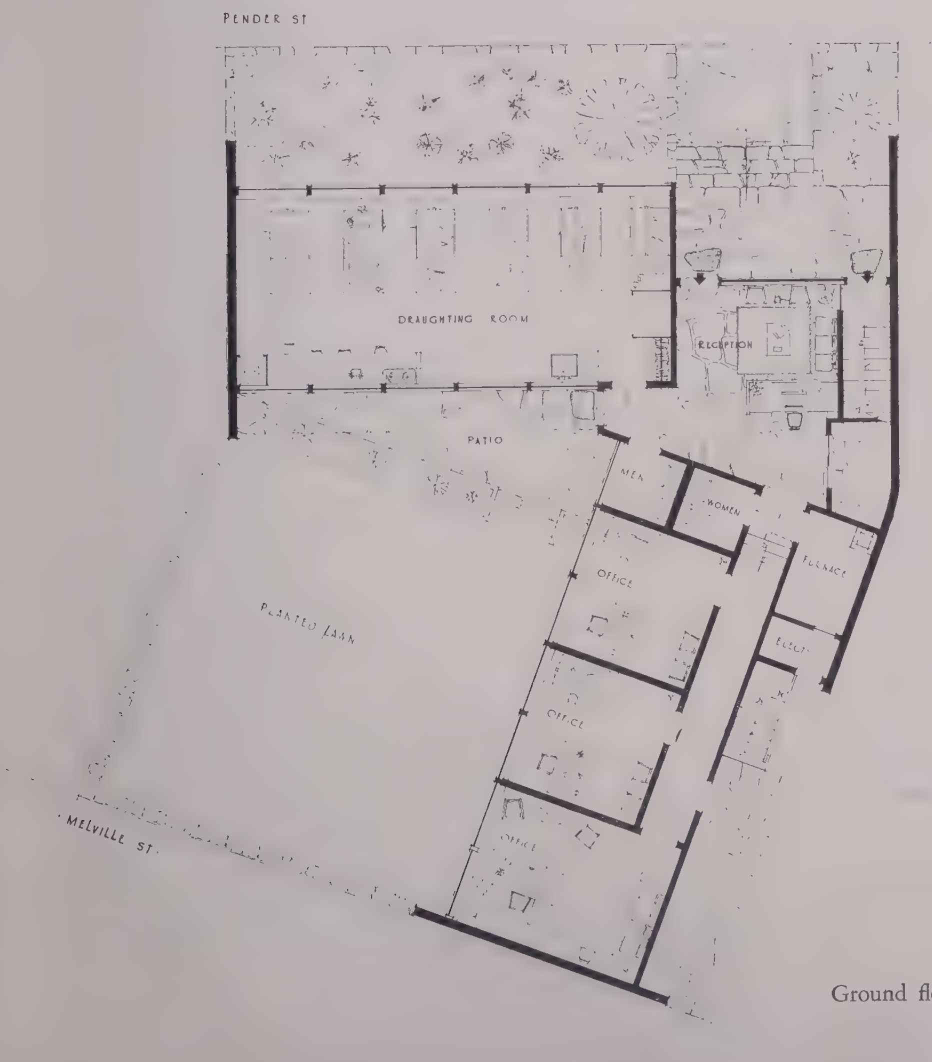


Reception area



GRAHAM WARRINGTON

Second floor
Rented premises (two)



Ground floor

Stained Glass

Angus Macdonald

FROM TIME TO TIME the use of a medium of expression is neglected, or misused. Usually, if it is a good medium, fresh young artists discover and adapt it to the feeling of their day. Stained glass, after centuries of increasing decadence, is undergoing such a rebirth today.

In the summer of '53, there was a magnificent exhibition of French glass from cathedrals all over France. Here, after five years of assembly and arrangement, were examples of work gathered together in a wing of the Louvre from the very earliest beginnings of stained glass up to that produced in the nineteenth century. *Time Magazine* had a very good review of this exposition. Its reviewer looked over the examples with sympathy and feeling, but he summed up the final analysis in pithy words – "there has not been a masterpiece in four hundred years."

It is a little difficult for us looking back, to see just why glass became more and more imitative of the art of painting, and less and less true to its own form of expression. Perhaps one reason was that, as people found they could make bigger sheets of glass, and paint whatever they wanted without regard to the leading, it saved a lot of work. As the painting became more and more photographic, it probably pleased the clients. Whatever the reason, we can look anywhere today and see the ghastly results.

The resurgence probably began fifty years ago with the growth of abstract painting. This pointed the way to the bones of design so strongly that it has lead artists to use other media, such as glass, in a more natural way. Whatever the cause, the result has been that there are artists working, quite independently all over the world, using glass in a way that is far closer to the feeling which it had five or six hundred years ago, than that which it has when done by the commercial glass companies.

Before starting to make stained glass professionally, I had decided to see everything I could in Europe. I wanted to test my theories of how to handle this medium against the glass produced during the last seven centuries. It is a good thing to see all one can from a distance, but I was also anxious to examine some of the greatest windows at close range.

In Paris there was a stroke of luck. They were repairing the roof in Sainte Chapelle and using a huge steel scaffold that went right up to the rafters. Fortunately it was about three feet from one of the windows. I knew that permission to mount this would take several months, and hundreds of letters and forms to and from the French Government, so I visited Sainte Chapelle on a Sunday when there were no workmen present. Watching a chance when the guard was outside, I quickly slithered to the top of the scaffold. When the guard returned with a crowd of people, as he was also a lecturer, he only glanced upward momentarily. By using some care, I was able to keep completely out of his sight for nearly two hours. This gave me an opportunity to examine these windows thoroughly.

On entering Sainte Chapelle, two things are particularly striking. They are, first, the dazzlingly jewel-like effect of the windows, they have perhaps more radiance than any others, and, secondly, the fact that the columns of stone between the windows are so slender that it is as though the entire chapel had been hung with a curtain of glass from a self supporting roof.

These windows confirm everything I instinctively feel about glass. Any paint which has been used is of very little importance. The different thicknesses of the lead, the size and design of the armatures, and the actual thickness of the small pieces of glass fill up an unevenly tessellated surface that is completely active to the dullest light.

In addition to this, I was struck with another matter of importance. That was the complete control of the colour. Although basically there are only one or two blues, and grey-whites, bits of gold and a variety of hot and cold reds, the colour is managed in such a way that it leaves the impression of a complete red harmony from each window. In some cases, this is a gold-red harmony and in other cases, a blue-red harmony. In each case, either a hot or cold light is allowed to prevail so that all the thousands of pieces of glass are contributors, each as a perfect little dissonance, or a swelling complement to the full orchestration of the prevailing colour in each window.

Apart from seeing what other craftsmen have done with glass centuries ago, and creating my own designs in glass, the most exciting moments have been when I stumbled upon the work of other modern artists working in glass as their chief medium of artistic expression. On a visit to New York to buy glass, I called on a Mr Bendheim. He has been importing glass from all over the world for many years and reselling it to American glass designers.

Mr Bendheim has a large selection of glass, and I was loathe to leave the store rooms where I was examining it. However, he had sent word that he would like to meet me and I was ushered into his office. He started showing off the various examples that friends of his, people who were

working in commercial glass companies as designers or makers, had given him over a period of years. As the commercial glass activity in the United States is just as bad as that which is going on in any other country, one may easily imagine the difficulty of being polite about those things which he held up for inspection. My eyes kept wandering to the small pieces of "streaky pot", roundels, and other fragments of the beautiful unspoiled glass, which were also in or near his windows. Suddenly, down in the dark of one corner, I saw a very small piece of stained glass. It was not more than a dozen pieces leaded together in a way that looked almost clumsy at first sight. Instinctively, I reached for it and held it up to the light and there was a beautiful small fragment of coloured glass, leaded in such a way that every piece of lead and every fragment of glass, some of which were very thick and clumsy, was singing in the morning sunlight.

"Who," I gasped, "made this?"

"Ah," said Mr Bendheim, "I might have known you'd have liked that – the work of a real artist."

He then proceeded to tell me about Bob Lewis who was working with Frank Frucci and who was at present entrusted with a commission for a church in New York.

"But," he said, "you must go and see him," and he gave me his address.

Uptown I went, and, off Eighth Avenue along a narrow street, jostled by people on the sidewalk, came to a small apartment block. Into a stubby doorway and up four long flights of steep narrow stairs I climbed. I could not help wondering how they could get the boxes of glass and lead up this stairway. Suddenly, on a top landing, a door was open. There was a most cheerful looking young man who said:

"Are you Mr Macdonald, Bendheim just telephoned about you."

I went in, and there in two windows was a magnificent start to the church window on which Lewis and Frucci were working. At this state it was about seven feet high and was a blue and yellow colour contrast that explored every possible range of the blue and yellow gamut, always with the edges of the glass coming together in such a way, that, where a deeper yellow, or a redder blue were required, they were there inevitably. There was no paint on this glass. The strength and beauty of the whole thing was a matter of the colour of glass and the thickness of lead, acting perfectly together.

I soon found out that Lewis had taught himself practically everything he knew, for the simple reason that there was no place that he could go to learn to deal with glass in the way in which he felt it was required to be done.

However, Lewis and Frucci are up against the usual difficulties that confront any artist who is determined to do sincere and original work. In a recent letter he writes, "but there is little demand for one's most personal work, especially from the church because of the donors' (or clergy's) preconceived notions of what a window should represent. General bad taste in this direction is a frightful thing; the artist often cannot reach the public without failing as an 'originator'; then art dies."

One cannot help wishing that someone in the United States could have the same vision and imagination that is being displayed in England at the moment by Mr Basil Spence and the Reconstruction Committee of the new Coventry Cathedral. These people have decided that something worth-while must be produced for this great new cathedral and in the nave alone there are to be ten windows seventy feet high. Three designers, Geoffrey Clarke, Keith New and Lawrence Lee are working on these windows under the auspices of the Royal College of Art, where Mr Lee is head of the Department of Stained Glass.

As they expect these windows to take approximately five years to do, and as the work is to be carried out by post-graduate students helping the artists, it should have a tremendous effect on other students in the college. In fact, their hope is that a new tradition may be established by this working together in a group of artists, designers and craftsmen, which will do some thing to bring back a feeling that had previously existed only at the times when windows were made for Chartres and York.

These windows for Coventry are to be conceived and executed in a contemporary, and semi-abstract idiom, so as to be in keeping with the architecture of the cathedral. Treated in this way, the subject matter of the windows is based on the different stages of man's life as seen through Christian eyes. As a first broad division there is an emphasis on God on one side of the nave and on Man on the other. These huge windows have been conceived as a complete movement of colour and mood, leading toward the altar and enriching the emotion which the cathedral itself will produce. In order to use colour to its greatest advantage to heighten this effective progression, the first pair of windows are to be green; next pair, red; the middle two, multi-colour; the next, purple; and the final two, gold. While the first four pairs are basically to show youth to old age, the final two windows are based on the after-life. On one side, the God-head as revealed in the Trinity, and on the other, Man's vision of the City of God.

It is a wonderful thing for British glass that there should be such a far-sighted Reconstruction Committee, and that they should have given the design of this cathedral to an architect with the sensitivity and feeling of a person like Mr Basil Spence.

England, always the home of people seeking political asylum, has gained the honour of being the present home of another artist in glass, Ervin Bossanyi.

Upon entering the Tate Gallery in London, one is struck immediately by a huge window in the richest blues and reds, on the left hand side as one walks in. It is the work of Bossanyi, an Hungarian who has finally settled in England due to the difficulties of working freely in some of the older European countries. His work is tinged with something ancient and oriental; it has the kinship with the oldest windows and, at the same time, an unique personal feeling. He uses some paint on the glass, but it is basically the beautiful designing of the shapes of the slabs of glass, and the actual leads which give the whole work its magnificent flavour. This window, inspired when he visited Chartres and noticed that the women washing clothes in the river had no monument to them along with that of the guilds, is called "Angel Brings Blessing to Washerwomen". It is fourteen feet high and four and a half feet wide. In addi-



PAGE TOLES

tion to many other private commissions, Mr Bossanyi at the moment is working on a series of large windows for Canterbury Cathedral.

It is possible that great opportunities may develop in the field of decorative coloured glass in the industrial and business world. An issue of *Life*, May the 10th of last year, showed in colour the work of Georg Meistermann. It was a design for a stairwell window of a radio station in Cologne. Although it was simple colour and an abstract design, the windows conveyed a strong feeling of electrical impulses and the idea of communication.

In Edinburgh two years ago, I met William Wilson, RSA, who showed me some of his work in that city. One striking example was the use of glass in the stairwell in a large insurance building. The glass hung through six floors beside a circular steel stair, that formed the centre of a great hollow column of stone. The result was a fascinating pattern chiefly in greys and whites and yellows, which appeared to flood what might have been a rather dim ascent with the feeling of sunlight, even on the greyest of Scottish days. The design, which he had incorporated into this particular theme, had to do with the insurance business. The result was both decorative and useful in its effect on the available light.

During the past eight years I have spent increasingly longer time on the medium of glass. Paint on the glass, as I use the medium, is unnecessary. Each fragment of colour, trapped in the black outlines of the lead, gives the rich mosaic-like effect which is to me the essence of real glass. Any seemingly painted parts of the glass are the lights and darks of the "streaky-pots" as the colour is found blown into the glass when it is made.

In my contacts with the clergy I have had the opposite side of Lewis' experience, having found that they take the keenest interest in the work I am doing.

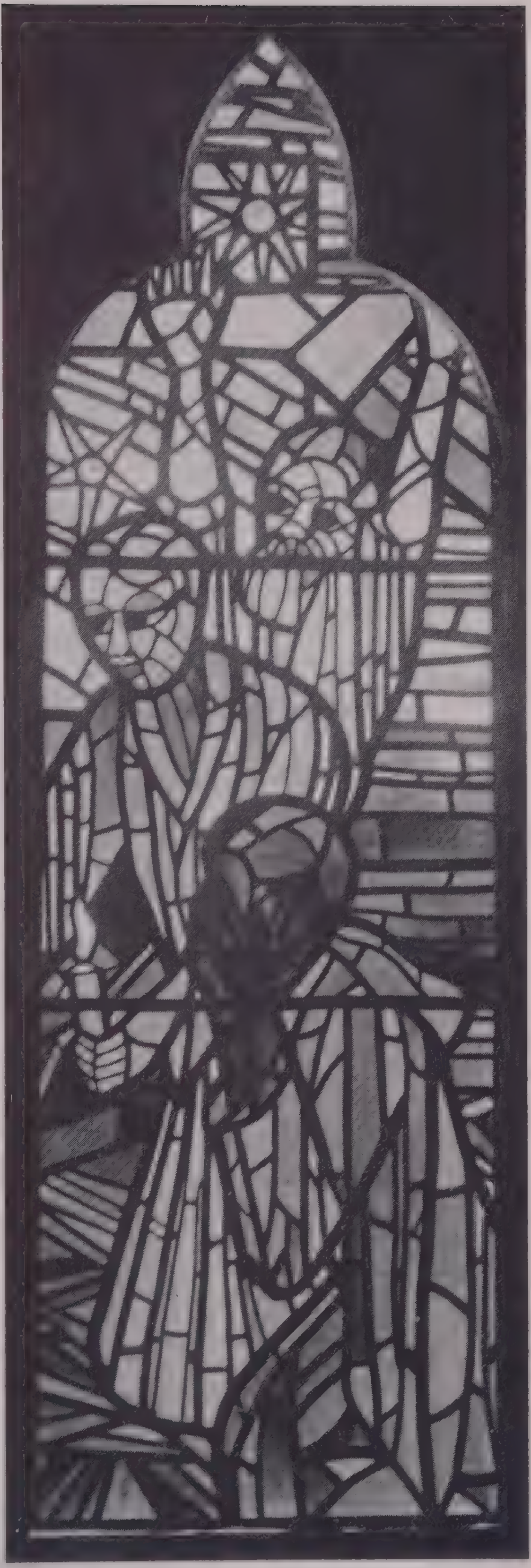
An excellent example of this wonderful backing by the church is the fact that there came a chance for me to quote on a window for a new cathedral in Ontario. It was a very important window directly over the altar. I spent about two months on the design only to find that in competition there were available other, much more usual, windows. One of these could be had from England, for considerably less than I could possibly charge for a window made in my way, which would involve some eight to ten thousand pieces of glass. To the laymen of the congregation it

seemed a good thing to have a window from England, and they, naturally, saw no reason to pay more money for a home-made effort. However, meetings were arranged and much explaining and questioning was done. Few people know much about stained glass and the artists must tell them, if they wish the information to be accurate and realistic. In all this, I had great help from the clergy concerned. It was entirely due to their vision and enthusiasm that I was finally awarded the contract for this window.

Modern architecture gives an hitherto unprovided opportunity for the use of glass in both interior and exterior parts of buildings. "Antique" glass, which is the trade name for blown, hand made glass, is available in hundreds of colours and with the most beautiful abstract shapes of colour already present in the individual sheets. Used with care and taste, these sheets could provide beautiful luminous walls ranging from decorations for entrances to offices and other public buildings, to the simplest use as colour harmonies in houses.

An old theory of mine has been that every modern house should contain a "quiet room"—a small room empty of any furniture but a very comfortable spring and mattress. It would have one door and a small narrow window at one end. The window would have many replaceable inside lights of abstract designs in glass. If the man came home from the office hot and tired and exasperated from a trying day, he would bathe, make a cool drink, and then go in to the "quiet room". He would select a window of blue and green glass and slide it into place, lie down on the bed and relax completely. Half an hour of this in the day would help solve many nerve problems. For the woman who was sick to death of the monotony of scrubbing floors, stopping children fighting, and mending clothes, the treatment would be the same except that her window would be chosen for its red, orange and magenta colour harmonies to lift her out of the seemingly endless rut. If the walls were of wood and soundproofed and the window also coverable with an iron shutter, it could also be a wonderful cell to which a child who had become too obnoxious could be consigned until tempers cooled.

The two flanking windows are six feet by two feet and are from St. Jude's Church, Oakville, Ontario. The artist was Mr Angus Macdonald.



An Art Centre for Winnipeg?

C. R. Hiscocks

About five years ago, some of the most important art treasures from the Austrian national collections were brought across the Atlantic and shown in Toronto and the United States. Someone estimated their value at $80,000,000 – rather arbitrarily. I think they would have been better described as invaluable. In speaking of them, a friend of mine mentioned that the Habsburgs had "ground the faces of the poor" in order to amass these treasures.

In saying this he made two mistakes, both errors in history. In the first place, the Habsburgs put more hard work into building up their wealth and influence over a long period, and, in doing so, were more considerate to their subjects than many rich and powerful rulers and commercial magnates before and since their time. Secondly, very great wealth was not necessary to buy the works of art in the Habsburg collection during the lifetimes of the artists. This second point is the important one for the purpose of my argument tonight. Charles V, who was Holy Roman Emperor from 1519-1556, ruled over Austria, Spain, Belgium, Holland and important areas of North and South Italy, as well as large territories overseas. On his death, his vast dominions were not all held together, but they remained in his family and so were still linked fairly closely.

The three great collectors in the Habsburg family were Charles' nephew, his grandson, and his great-great-nephew, who all collected during the century following Charles' death. In the same century were living in Italy, Titian and Tintoretto; in the Netherlands, Pieter Bruegel the Elder, Rubens and van Dyck; in Spain, Velasquez. So it was comparatively easy for three rulers with an interest in art, discrimination, and reasonable wealth at their disposal to acquire between them one of the world's great art collections. It was possible because the works of art were bought during the lifetimes or soon after the deaths of the artists. It was also much better for the artists themselves, who were thus able to work with reasonable security, and sometimes even in opulence.

I am sure that many of those present tonight have read the autobiography of Benvenuto Cellini. From that we get a vivid impression of the full and feverishly active life of a great artist enjoying the patronage of the lay and ecclesiastical nobility of Italy in the sixteenth century.

Another great patron of the Arts was Charles I of England, on whose collection some of us heard a lecture in Winnipeg two or three years ago. Rubens and van Dyck enjoyed his patronage. They were both knighted. van Dyck was also appointed court painter with a handsome stipend, and married into the English aristocracy. Rubens was given an honorary degree at Cambridge University, and on the continent he was employed on a number of important diplomatic missions.

To turn to quite a different field, one of the few sections of London which is really well planned and laid out is Regent's Park and Regent Street and that good planning was to a great extent due to the interest shown by George IV when he was Prince Regent. Paris owes its grand layout very largely to the autocratic Emperor Napoleon III.

The leading positions of Germany and Austria in opera, music, and the theatre are due entirely to the foundation of court opera houses and theatres by German rulers, great and small, in the past. Not only did Vienna and Berlin have such court theatres, but Hanover, Munich, Brunswick, Mannheim, and Weimar as well.

Let us contrast this state of affairs with the situation in democratic North America today. The average standard of wealth and education is much higher, yet the situation is far less favourable to artists. Compared to what might be called the *ancien régime*, when royal and aristocratic privileges were part of the normal order of society, the combination of wealth and power, on the one hand, and love for art and discriminating taste, on the other hand, is exceedingly rare.

A great many works of art have been bought and sold in this continent in the last fifty years. Vast sums have changed hands. Yet the articles by Behrman in *The New Yorker* which appeared in the fall of 1951 on that fabulous phenomenon, Joseph Duveen, who finished up his life as Lord Duveen of Millbank, have revealed the quite fantastic part played by art dealers in these transactions. Raphaels, Rembrandts, and Gainsboroughs have changed hands for figures which the artists concerned in their lifetimes would have considered enormous, even if they were divided by twenty or thirty. In fact, it is agents, not artists, who have flourished in North America in recent years.

The President of the Manitoba Society of Artists told me two or three years ago that, with one or two possible exceptions, scarcely a single member of the Society depended for his living on works of art produced for art's sake and sold as such, as opposed to works of art produced for commercial purposes.

The last number of that excellent periodical *Canadian Art* reproduced three pictures which have recently been acquired by the Winnipeg Art Gallery. Two were by artists with established reputations, in the sale of which dealers had had a hand. One was by a very gifted young Winnipeg artist, who depends on his painting for a living and urgently needs support and patronage. The young artist was paid $55.00 for his picture, the other two cost between them over $20,000. Yet the Winnipeg production was considered good enough to hang for months in the Winnipeg Gallery, to send on loan to the National Gallery in Ottawa, and to reproduce in *Canadian Art* with the two others.

Canada and the United States, with all their wealth, are full of organizations struggling against odds to keep orchestras, live theatres, and art associations going. In the case of opera, only in a few of the larger cities has the struggle even started.

Can the problem of patronage be solved satisfactorily in a democracy?

So far my remarks have been of an introductory nature. Before going on to my subject proper I want to try to answer two preliminary questions –

1) Can the problem of patronage be solved satisfactorily in a democracy?
2) Are the Arts a proper subject for a democratic government's direct support?

What the first question amounts to is: can you find or develop in a democracy satisfactory substitutes for the combination of wealth, influence, appreciation, and taste that did exist in the aristocratic societies of the past? We must face the facts: we cannot find very satisfactory substitutes in the new democracies at present, and it will take time and much effort to develop them. There are several reasons for this. In the first place, standards in democracies tend to be set by the Philistine masses, not by the discriminating few. Secondly, the urge for economy tends to be satisfied at the expense of man's mental and spiritual, rather than his physical needs. Thirdly, if patronage is extended, it is likely to be to the safe and mediocre artists rather than to the original and controversial genius.

In the Massey Report the suggestion is quoted that in all federal buildings one per cent of the cost should be spent on sculpture and murals. The Winnipeg Branch of the Humanities Association of Canada recently commissioned a member of its Executive to write to the Minister of Public Works regarding the possibility of beautifying the new Post Office building that is to be put up in Winnipeg. In his reply the Minister stated that the matter had been given consideration in the case of other government buildings but, at the same time, made clear that he was rather frightened of doing the right thing. Before we can expect much progress, the Canadian people will have to show that they want it, so that the Federal Government's fear being ahead of public opinion will be outweighed by its fear of being behind it. However, there are grounds for hoping that the situation will improve and that satisfactory forms of democratic patronage will gradually be developed.

We may hope that the few who combine wealth and taste will increase in number and will take greater pleasure in backing their own judgment and not handing out such large sums of money to dealers as a kind of insurance against making mistakes. We may also hope that the interest and taste in art of average citizens will increase and that they will take greater pride in supporting living artists and not concentrate so much on their own kind of insurance, which takes the form of buying reproductions. Again, we may hope that an increasing number of large commissions will be given to artists, not only by the Federal Government but by Provincial and Municipal Governments and by such institutions as universities, schools, churches, foundations, and large industrial firms; that is, by the bodies which have most power and influence in modern democratic society.

In fact, the solution of the problem can best come from an alliance of private and public patronage, in which rich and poor, large and small institutions and organizations all play a part. An Art Centre will contribute to bringing about this result by helping to raise the public taste, and by drawing the attention of the governments and other organizations to the interest that already exists.

Are the Arts a proper subject for a democratic government's direct support?

First, I want to make a distinction between what I mean by "patronage" and what I mean by "direct support". Patronage is payment for services rendered, for example, employment of artists to beautify a government or commercial building or a commission to paint the portrait of the president or the chairman of the board of some company. Direct support means taking the initiative in encouraging the Arts, for example by setting up an Arts Council, giving scholarships or fellowships to individual artists, and helping with subsidies voluntary organizations that deserve it.

There are, I think, three reasons why a democratic government should give direct support to the Arts. First, it is recognized that education is a function of government. The principle of free and compulsory education has now been generally accepted. It can scarcely be denied that some training in the Arts is part of education in the full sense of the word. Aristotle recommended that children should be taught drawing "because it makes them judges of the beauty of the human form" and then he added "to be always seeking after the useful does not become free and exalted souls" — that great remark should be much better known than it is. I should go still further than Aristotle's first remark and say that the study of art by training our eyes to appreciate beauty in all its forms greatly enriches our lives. Aristotle also recommended the study of music, because, through its strong influence on men's minds and emotions, it has a power of forming the character.

The importance of the part played by the Arts in education is generally accepted by enlightened educationists. They certainly have as great a claim to be a part of education as learning to use a typewriter or to drive a car. If that is accepted, then it is obvious that children and adults must not only have an opportunity to play instruments and to draw but also to go to concerts and to see good pictures in galleries, experiences which will give them a sense of standard.

The second reason why a democratic government should give direct support to the Arts is that support has been given by other democracies with highly satisfactory results. The architecture and sculpture of the Parthenon are a much more lasting memorial to Pericles' leadership of Athenian democracy than either his internal or external policy. A few weeks ago I had a touching letter from a friend who had just spent a week in Athens and had been to see the Parthenon. " 'Nunc dimittis', I felt and still feel", he wrote.

When Germany and Austria became republics at the end of the First World War, they inherited the royal sense of responsibility towards the Arts and took over without question the court theatres and opera houses, continuing the subsidies. That is why German and Austrian opera, theatres, and orchestras have maintained such high reputations, even in the days of European economic decline. Such things are not achieved without cost. In 1954, the Austrian government's capital expenditure on the rebuilding of the state opera and theatres amounted to 70 million schillings, that is nearly 3 million dollars. In 1952, in beleaguered West Berlin, the subsidies paid to the opera and theatres amounted to 9,600,000 marks, which is nearly 2½ million dollars. Even more significant is the fact that the Austrian republic, since the war, has imposed a small tax on movie tickets and radio owners, the proceeds of which are devoted to artistic and educational purposes. This awareness on the part of the Austrian people of the comparative values of different forms of entertainment should, I think, serve as an example to Canada.

Until the Second World War, the British Government's record in this respect was very bad. Then, stimulated by the example of the Pilgrim Trust, Myra Hess' National Gallery concerts, and the urgent need to maintain morale under the grim conditions of blackout and war, the Government decided to subsidize C.E.M.A. (the Council for the Encouragement of Music and the Arts), which was turned into the Arts Council in 1945. For each of the last two years the annual subsidy to the Arts Council of Great Britain has amounted to £785,000. This small sum wisely spent has done an immense amount of good in accordance with the general principle of helping cultural organizations which have shown that they can help themselves. For example, good drama, opera, orchestras, art centres, art exhibitions, and music and arts clubs have been assisted. Support has been given to the great British Music Festivals and the Sadlers' Wells Ballet Company. It has been made possible for Covent Garden to become a permanent home of opera and ballet, and in conjunction with the British Council and foreign cultural organizations, important cultural exchanges have been organized on an international basis.

The example of the Arts Council of Great Britain has mainly inspired the Massey Commission to recommend the creation of a Canada Council for the Encouragement of the Arts, Letters, Humanities and Social Sciences. The Prime Minister has recently given us grounds for hope that the Canada Council will materialize before long, and we trust that it will be brought into existence in not too grudging a way.

The third reason why a democratic government should give direct support to the Arts is the simplest and the most fundamental. To support the Arts is a worthy activity for the best

form of government, which most of us still believe democracy to be, in spite of its failures and deficiencies. Totalitarian governments, whether Communist, Fascist or Nazi, pride themselves on their interest in education and culture. You will no doubt remember the Russian troup of dancers and musicians that was sent to Winnipeg a year or two ago. I do not approve of totalitarian attitude towards cultural matters – there is too much control and too great a tendency to stifle initiative. But the democracies cannot allow themselves to be put to shame by default. We can do much better in this respect than the totalitarian states. Our support must be based on giving free range to the creative spirit and on the principle of helping those who help themselves. Above all, we cannot let it be said that the democracies are less interested than totalitarian governments in the higher form of human activity.

A few days ago an expert on the Middle East addressed the men's and women's branches of the Canadian Club here. He pointed out that North America tended to be judged in the Middle East by the products which it took most pains to make known–the worst types of Hollywood films, comics, and certain highly advertised kinds of soft drink. His remarks no doubt applied much more to the United States than to Canada, but active support to art and culture would no doubt act as a corrective to the tendencies which he described and which are at present almost unchecked.

This third point may be summed up by the quotation from St. Augustine's "City of God" which appears at the beginning of the Massey Report:–

"A nation is an association of reasonable beings united in a peaceful sharing of the things they cherish; therefore, to determine the quality of a nation, you must consider what those things are."

Why does Winnipeg need an Art Centre?

All that I have said so far may have seemed like a long introduction, but it has been relevant to my purpose. We now come to the core of the subject, why does Winnipeg need an Art Centre?

There are three good reasons – I would say irresistible arguments – why it does.

First, Winnipeg needs an Art Centre, because it is destined geographically to be a centre of art. From East to West it is the main cultural centre between Toronto and Vancouver. From South to North it is the main centre between the twin cities of Minneapolis – St. Paul and the North Pole. As the North Pole is not a cultural centre, I amused myself the other day by continuing the longitudinal line over the top of the globe. I found it came down just east of Delhi and Agra, and as there are no important cultural centres in the middle of Siberia, Winnipeg is really the main centre between Minneapolis – St. Paul and Delhi. The Art Centre I have in mind would be the symbol, the proof of our cultural faith, and the concrete sign that we realize our geographical destiny that is required at the present stage of the citizens of Winnipeg and Manitoba, of the City authorities, and of the Provincial Government.

The second reason why we need an Art Centre is that in every branch of artistic and cultural activity in Winnipeg existing organizations are in need at this stage of the practical help and encouragement that an Art Centre would provide. Winnipeg is destined not only geographically, but owing to the quality of character of its people, to be a great cultural centre. I have lived not only in London, but for several years each in two of the great musical and artistic centres on the continent of Europe, Vienna and Berlin. Nowhere have I found such a combination of spontaneity, enthusiasm, and the pioneer spirit in relation to the Arts in the broadest sense. It may be because there is so much here still to be done – that is the case in many cities – but not everywhere is enthusiasm and a sense of adventure to be found. It may be that these qualities have not always been harnessed and rendered effective by good organization – that is inevitable, in the case of all voluntary organizations. On the whole, as far as I can judge, Winnipeg has had more than average good fortune as regards organizers and administrators.

Without attempting an exhaustive list, I shall mention some of our main achievements. We have produced: –

I The Royal Winnipeg Ballet: both from the point of view of time and artistic standards the leading ballet company in Canada.

II The Little Theatre: a group of devoted enthusiasts who have recently been stimulated by the emergence of an exceptionally gifted producer in the City.

III The Winnipeg Art Gallery Association: one of the most live and progressive bodies of its kind in the country.

IV The Winnipeg Symphony Orchestra: which under conditions of great difficulty has kept together a large orchestra and given us good concerts regularly over a period of years.

V The Men's Musical Club: an organization which I do not think gets all the publicity that it deserves. The Club has for thirty-five years organized annually Canada's largest musical festival and so contributed greatly to raising the standard of performance and appreciation of music throughout Manitoba, as well as exporting at least half a dozen outstanding musicians, mainly to Britain. It has also run the Winnipeg Male Voice Choir, the Winnipeg Boys' Choir, and the Philharmonic Choir – and I may say that the Philharmonic Choir's performance of the Messiah last fall, in spite of the lukewarm remarks of one or two of our music critics, was a performance of which any city, in any part of the world, could be proud.

The Men's Musical Club also played a leading part in the foundation of The Federation of Canadian Musical Festivals, so that the headquarters of that organization is now in Winnipeg.

Yet all these organizations live precarious existences, from time to time they face great difficulties, and they lack the solid foundations and adequate reserves necessary to meet an emergency.

First, the Winnipeg Art Gallery Association. I'll start with that, because I know it best. The Association is grateful for the accommodation provided by the City, but it is inadequate for various reasons. The rooms available were never intended to be an Art Gallery. We have to depend on improvised wall space for our permanent collection, which has to be taken down from time to time at great trouble and expense to make room for other activities. The space available to show temporary exhibitions is also inadequate for our needs. The many stairs make it difficult for some people to see the exhibitions at all. There is no proper accommodation for art classes. There is no lecture room. Packing rooms and storage space are inadequate, and the times when the public can visit the Gallery are restricted by the possibility of there being boxing matches or other noisy activities going on in the Auditorium.

Secondly, the Royal Winnipeg Ballet. The Massey Report quotes the following statement:

"Winnipeg in particular is fortunate as a centre of ballet, with its high standard of music and with its thousands of people of Slavic and Central European background to whom the dance is a natural and habitual form of self-expression."

It has also been fortunate in the two devoted pioneers who were the founders of the Royal Winnipeg Ballet. I refer of course to Miss Gwenneth Lloyd and Mrs Betty Farrally. With the aid of dancers who are willing to work for a pittance they gave Winnipeg a company which won for the City not only nation-wide fame but a growing measure of international fame. Yet the Ballet was always in financial difficulties. It lacked adequate headquarters, rehearsal rooms, workshops and storage facilities. After more than ten years of sustained effort in which she gave an immense amount in hard work and creative genius and got virtually nothing in return, except the knowledge of something worthwhile accomplished, Miss Lloyd had to go East in order to earn an adequate living. She remained Director of the Ballet and continued to return to Winnipeg as her home, but were not her services rather a lot for a wealthy city like Winnipeg to take for granted? Then last summer came the disastrous fire, in which almost all the company's scenery, cos-

tumes, music, choreography were lost. There were no reserves to fall back on, so there has been a disastrous gap in the Company's continuity which for a less loyal and enthusiastic body might well have proved fatal. The only way of showing our appreciation of the Company's achievement is to raise the second half of the money required to enable it to start work again in much quicker time than it took to raise the first half.

Thirdly, there is the Little Theatre. It provides one of the few chances most Winnipeggers get to see live theatre, and yet it works under the greatest technical difficulties. The Playhouse is too big a theatre for amateurs. As the Company can only get into it two days before the opening night the actors cannot get used to conditions in the theatre. There is no storage space available there. It is difficult for the Company to find the accommodation necessary for rehearsals and the workshops required for building the scenery and making the costumes. For each production the City takes in rent for the Playhouse more than the combined cost of the royalties, the sets, and the costumes. Half the money that has to be spent on the scenery is due to transportation costs required for moving it around the City.

Fourthly, the Winnipeg Symphony Orchestra. It has special problems of its own. In the first place, all the best orchestras in the world are run at a loss and have to be subsidized. Secondly, there is the difficulty of holding together a good body of players when the orchestra only gives about ten concerts a year, so that at reasonable rates of pay the average player would earn less than $500.00 a year for his work with the orchestra. Thirdly, there is the difficulty of finding suitable rehearsal space without wasting time and money on the transportation of instruments.

The third reason why we need an Art Centre is that it gives us a magnificent opportunity, from the point of view of architecture and town planning, for improving our City. There have been some terrible mistakes and lost opportunities in the past. For example, the University is much further away from the city centre than it should be, and the opportunity presented by our two rivers has been completely thrown away, so that a visitor hardly realizes that the rivers are there. I often forget their existence myself, except when I occasionally get a glimpse of one of them through somebody's back garden. A fine Art Centre in a central position with well laid out surroundings would be an immense addition to the beauty and dignity of the City. The fact that a Winnipeg firm of architects won the prize for designing the new National Gallery at Ottawa and that the runners-up were also, I think, from Winnipeg shows that we have architects well able to take full advantage of a great opportunity.

What should our Art Centre contain?

The answer to this question would have to be worked out carefully by a committee consisting of representatives of the interested organizations. So I can be brief in giving my tentative personal opinion.

I do not think we should be over-ambitious. Some say we need a new large concert hall. The Auditorium is not perfect, but it is better than many other cities have, and I should not include a new large concert hall in a Winnipeg Art Centre.

It should include, I think: —

I *An Art Gallery* This should contain galleries for our permanent collection — and we should have to leave room for expansion — adequate galleries for our temporary exhibitions, classrooms, at least one lecture-room, a library, administrative offices, and adequate storage and packing space.

II *A Theatre* It should be built to hold about five hundred, so that the Little Theatre could run their shows for a week and the actors could get played into their parts. In connection with the theatre there should also be rehearsal rooms, workshops, storage space for scenery and costumes, and administrative offices. The theatre should be planned entirely to fit the dramatic needs of the Little Theatre, but it could obviously be used also for concerts, lectures, and other functions.

III The Art Centre should contain rehearsal rooms for the Ballet, the Symphony Orchestra, the Philharmonic and other choirs. It should include offices for all the participating organizations, workshops and storage space for the Ballet, and instrument rooms for the Orchestra.

IV It might be desirable that the Art Centre should contain studios for music teachers, if it does not seem likely that they will be provided on a commercial basis.

The outward appearance of the building and the lay-out of the grounds would obviously have to fit in with the Centre's artistic purpose. Whether it should be one building or a group of buildings is a problem that would have to be worked out between the organizations concerned and the architects.

A suggestion has been made that a pooled fund for cultural purposes should be set up in Winnipeg, a kind of artistic Community Chest. Though open to conviction on this point, I am not at present in favour of this idea. In setting up such a fund we should, I think, run the danger of having too much organization. I should like each organization to be free to go as far as the spontaneous enthusiasm and impetus of its members carried it. But what I do think is essential is the creation of a substantial reserve fund, which could be used to tide organizations over emergencies — such for example as the Ballet fire — provide temporary loans and occasional grants to organizations in need of them, and facilitate the signing of long-term contracts with directors, producers, conductors, etc. The Junior League's experience would I think be invaluable in the setting up and administering of such a fund.

How is the project to be realized?

Now comes the question of how the project is to be realized, or, in fact, where should the money come from? It was announced recently that O'Keefe's Brewery had offered 10 to 12 million dollars to Toronto to set up an Art or Cultural Centre which is to be called for public relations purposes "The O'Keefe Centre". No doubt if a similar sum were offered to Winnipeg by any firm, we would accept at once and be prepared to call it anything.

But I should prefer to see the money raised in a different and more difficult way. I should like to see our Art Centre come into being as a result of combined private and public enterprise. This alone would reflect the nature of the need which is to be filled. I should like to see rich and poor citizens, the City of Winnipeg, and the Province of Manitoba give to the people of Winnipeg, and the great area which its Art Centre would serve the amenities and stimulus they need and deserve. Ideally one could aim at getting contributions averaging five dollars each from about twenty thousand people, that is to say about 2½% of the population of the Province, several thousand larger contributions, a few very large contributions, and substantial support from the City and from the Province.

I have already given a number of reasons why a democratic government worthy of the name should give support to the Arts. There are certain special reasons why public support should be given to this particular plan.

In the first place, the rich who can travel to New York and Europe to see drama, hear music, and look at pictures, and can afford to buy pictures of their own, would need the Art Centre least. Why should it be left to the accident of individuals' generosity to determine whether or not the people of a wealthy democracy get the full education they deserve, the opportunity to become acquainted with the finer products of man's creative genius? Is it not the birthright of a man whose mother tongue is English, even if he does happen to live in Northern Manitoba, to have one or more opportunities during his lifetime to see a Shakespeare play, without being dependent on a brewery giving $10,000,000 or on six millionaires making princely donations to enable him to do so?

Secondly, people inevitably vary in their sense of responsibility as democratic citizens. Some would undoubtedly visit the Art Centre without making any contribution to it. Why should the thoughtful and responsible bear the whole burden of the thoughtless and irresponsible?

(continued on page 233)

VIEWPOINT

Do you think that the ruthless competition apparent today for every job is affecting the quality of work produced?

The above topic is most timely. It is not necessary for us as architects to approve and accept work of inferior quality. Established contracting firms will still wish to maintain a reputation for good and conscientious work. Care should be exercised in the awarding of contracts. Closer supervision may be necessary at the start on some particular jobs. Specifications may require some tightening up.

The current competition is resulting in lower cost for buildings, which is being accomplished primarily by more efficient contractors' organizations, more supervision by experienced contractors' personnel and experienced workmen being employed on the jobs.

H. K. Black, Regina

Yes, I think this is true and there are many disadvantages to ruthless competition. In a mild form it is stimulating to progress, but when an architect will sell his soul to land a commission he has lost sight of the high ideals of his profession. The syndicated firm of Architect, Engineer & Publicity Agent with cunningly disguised stock plans and specifications, organized on a mass production basis, will get the job. The conscientious architect who devotedly designs each building in the best interest of his client will lose out.

This explains why the large firms are getting larger and the small firms are dying out. It is no longer a profession but a business. In the long run, there is only one end to this. The syndicated firm will give way to the packaged dealer and prefabricator.

Basically the fault is with our materialistic age which drives one in twenty people to mental illness. The public ambition to build a fine society has been lost in the rush to get rich quick.

P. A. R. Dickinson, Toronto

I must confess that the title of this symposium has left me in doubt as to whether it is the ruthless architectural competition or the ruthless competition among the contractors that is to be discussed. However, as architects are essentially more interesting (and more ruthless?) than contractors, I shall confine my remarks to the professional field.

My answer then is no; I do not think the ruthless competition among architects is affecting the quality of the work. Competition is the enemy of complacency and when the staff of life is about to be snatched out of your babes' mouths (correction infants' mouths) by some other ruthless architect, who can afford to relax and coast on past performances? We are forced to produce a better job and give better service, for if we don't, then there are a hundred architects who will.

While this competition is hard on the participants and a major source of ulcers and high blood pressure, this striving to do better work than your neighbour can only have a beneficial effect on the place architecture holds in Canadian society.

That constant urge to show the other architect that you, too, can produce a beautiful building or even more important, that rarest of delights, a satisfied client, can go a long way to overcome inate lethargy, spring fever, and the desire to earn an easy dollar!

D. T. Dunlop, Toronto

Ruthless competition in the Windsor, Ontario area has been a rare occurrence developing in a very few instances and then only when some large contracting firms, who operate on a national scale, bring their operational technique with them and introduce local contractors to the formulae upon which their success in tendering appears to be based.

The standards of workmanship of the trades are high in this area, competition is keen but, in my opinion, fair both to the men themselves and to the owners whom they seek to serve. Full value given and received is certainly the rule and not the exception. So far we should not be grouped with regions where ruthless competition obtains.

Let us hope that the few who thrive on such business methods and come here for the greater extension of their operations do not succeed in planting the seeds of ruthlessness in this market. We cannot see that such competition can be anything but harmful for all three members of the building team; owner, architect and contractor.

George Y. Masson, Windsor

The ruthless competition – as the question states – varies with the particular region across Canada and varies with the time of year. In the Winnipeg area, for instance, competition becomes very keen for work in the early spring when builders are lining up for the summer ahead – and in the fall when builders are anxious for work to keep their organization together in the winter months.

I do not believe the quality of work is affected so much by this competition as it is by the type of builder organization today related to changing building techniques and methods. The old craftsmen are all but gone and we find those taking their place unable to produce the quality of work which is still demanded.

Our buildings today, for the most part, are being designed and detailed with a mixture which demands both skills of the traditional tradesmen and skills for the putting together of machine-produced parts and articles being increasingly introduced into our buildings. Until this transitional stage in our building design has passed (as it will) confusion will prevail and quality will continue to suffer in varying degrees.

If a building is built under the guidance and supervision of an architect, the quality demanded in the plans and specifications should, in theory, be attained regardless of the competition experienced in getting the job. Unfortunately, however, the architect is still, to a large degree, at the mercy of the abilities of the tradesmen employed.

Ernest J. Smith, Winnipeg

Competition by whom? We as architects "view with alarm" the awarding of a contract to a bidder with a price far too low for the producing of the type of structure called for.

But competition, even of the ruthless variety, is not restricted to contractors. There are more than rumours to indicate that the architectural field is being invaded by fee cutters, deferred payment operators, and sometimes by outright gifts of free designs in the hope of obtaining commissions which might not otherwise be secured.

There is nothing to prohibit a contractor from putting on his work as low a figure as he pleases; however, architectural fees have been established at rates which, over a period of time, have been shown to be necessary to produce a good design, well detailed working drawings and specifications, and the sort of supervision necessary to assure the carrying out of the scheme as designed.

William A. Watson, Belleville

We apologize to our writers on this page for the ambiguity of the question, and we will keep it a secret whether the Board meant competition between contractors or between architects.
Editor

1954-1955 REPORT OF THE JURY ON ADVERTISING DESIGN IN THE JOURNAL

The annual judging of the advertising content in the Journal took place on April 14 last. The judges looked at all advertising in the magazine for the previous twelve months. The following awards were made;

FIRST PRIZE — PLYWOOD MANUFACTURERS ASSOCIATION OF BRITISH COLUMBIA

SECOND PRIZE — PERLITE DIVISION, GREAT LAKES CARBON CORPORATION

HONOURABLE MENTIONS — OWENS-ILLINOIS INTER-AMERICA CORPORATION
(*Toplite Panels and Light-directing Glass Block*)

PILKINGTON GLASS LIMITED
(*Spandrel Walls*)

ALEXANDER MURRAY & COMPANY LIMITED
(*Donnacona KB Sheathing*)

PAUL COLLET & CO. LTD.
(*Armobond, Kalistron, Flexwood*)

KAWNEER CANADA LIMITED
(*W-Series Door*)

The outstanding advertisement of the year, in the judges' opinion, had a clear and dramatic impact. It showed, in fact, the product, a plywood form, being peeled off a wall. The caption was simple and direct; the type was clear and consistent and the whole page was carefully composed.

The second award went to a very clever device for showing off a lump of Permalite, surely one of the least presentable products in the builders' range. The lump is neatly displayed in a pattern of the basic shapes of building, triangle, circle and square. The adman's pitch could be improved, but it is clear, it is readable and it makes its point. The whole page is simple and uncluttered.

In the honourable mention group, each was an attention-getter in its own way. The page was definitely composed to draw the readers' interest by the major caption and by colour or by a good photograph. Compared with the winners, however, each of these latter five advertisements was too complicated. The initial impact on the reader was lost. His interest was not sustained.

The problems which began to show up in the honourable mention group, the cluttered page and the unfortunate choice and placing of type, were characteristic of most of the advertisements that the judges passed by. One could say in general, that they were old-fashioned in style. The present-day reader has become used to being hit over the head by a good picture image and a slogan, to whet his interest and make him want to know more about the product. He was being offered instead, a miniature brochure of information with a confused visual impact.

The judges were delighted with the quality of the two prize advertisements and hope that there will be many more of that calibre in the future.

Respectfully submitted,
Chairman, W. S. GOULDING
CLAIR STEWART
E. J. TURCOTTE

SYMBOL OF A NEW FREEDOM



Permalite®

freeing today's architecture from the shackles of dead weight. Permalite makes possible lightweight concretes and plasters for modern construction, for insulating, for fireproofing —gives to the architect new freedom to pioneer in the design for buildings of tomorrow. To learn the many ways this amazing material can serve you now, pin this page to your letterhead and mail to the address below. Full factual data will be sent you.

PERLITE DIVISION, GREAT LAKES CARBON CORPORATION
612 South Flower Street, Los Angeles 17, California

Exclusive Canadian Permalite Franchises of Great Lakes Carbon Corporation

WESTERN PERLITE CO., LTD
101 Barron Bldg.
Calgary, Alberta, Canada

PERLITE INDUSTRIES REG'D.
500 Canal Bank
Ville St. Pierre, Quebec, Canada

PERLITE PRODUCTS, LTD.
500 Raleigh St.
Winnipeg, Manitoba, Canada

NEWS FROM THE INSTITUTE

CALENDAR OF EVENTS

Fourth Congress of the Union Internationale des Architectes at The Hague, The Netherlands, July 11 to 16, 1955.

ONTARIO

There is a prevailing idea that expansion means progress. Judged by these standards Ontario, and Toronto in particular, are very progressive indeed. In the last ten years Toronto has grown beyond all expectations; even relative newcomers can remember the time when Eglinton Avenue, now the geographical centre of the city, was a country road. Growth has been so fast that there has been insufficient time to think very hard about the way in which development should take place.

What Patrick Geddes predicted with such foresight forty years ago is almost in sight – an urban development along Lake Ontario which stretches from Toronto to Niagara Falls. The junction between Toronto and Hamilton has almost been achieved, there are still a few stretches of farmland and many beautiful estates, but these seem to be doomed to disappear to give way to housing and industrial sites. The use of land seems to be decided by the constant pressure of developers who buy up farms to sub-divide them for housing and industrial sites. The best farm and fruit growing land on which Ontario's economic development depended in the first instance, is being destroyed without consideration of the simple fact that an increasing population has to be fed as well as housed. Development, in many cases, is so sporadic and dispersed that it is uneconomical and next to impossible for the municipalities to provide the necessary services. Recreational park areas are sadly lacking both in the cities and outside. It is not without regret that I have seen many beautiful hills and valleys, fields and woods disappear under a carpet of roads and buildings. It would now be so easily possible to set aside some of the more beautiful sections along the shore of Lake Ontario for recreational development.

At a time when a fully developed theory of regional planning is in existence, development continues to take place in a vacuum of ideas. The Ontario Planning Act has gone a long way towards controlling development, but it tends to be prohibitive rather than positive legislation. It is high time that some effort toward the creation of a positive regional planning program be made, and I think that architects and their associations should clamour more strenuously towards that end.

Henry Fliess, Toronto

OBITUARY

John Macrae Kitchen, M.B.E., died at his home in Ottawa on the 16th of May, 1955. As his close friend for the past thirty-five years, it is my privilege to record the tale of a life well lived in public service, and in persistent devotion to the vision of the future Ottawa.

A native of Partick, Lanarkshire, Scotland, John Kitchen received his training in Glasgow and came to Ottawa in 1919 as supervising architect for the City. For many years he worked in close association with the late Noulan Cauchon, who became known as the father of town planning in Canada. Following the death of Mr Cauchon, John Kitchen became technical adviser to the City Planning Commission.

During the second world war he served in a series of top executive appointments in the Department of Munitions and Supply. He returned to his first love, town planning, in 1945, when he was named as an associate of Jacques Greber in the Capital planning program. In 1951, he was appointed Director of the National Capital Planning Service, which more recently has been placed directly under the Federal District Commission. This appointment he filled until his death. One recalls his constructive work in past years in the organization of the Town Planning Institute of Canada, and his interest as a founder in the Community Planning Association. Outside the profession, his capacity for public service found outlet in such activities as a trustee of the Ottawa Civic Hospital, as President of the Kiwanis Club of Ottawa and in fruitful participation in many ways in the community and fraternal life of the City.

In 1952, John Kitchen was made a Fellow of the Royal Architectural Institute of Canada, in recognition of his outstanding contribution to the development of the Capital.

Those who knew him best recognized John Kitchen as a man with a true sense of mission, undeterred either by difficulty or by pettiness in pressing toward a goal. In the hearts of his friends he will be remembered as one to whom, in the words of John Masefield,

"Love, freedom, comrades, surely make amends
For all these thorns through which we walk to death."

A. J. Hazelgrove

Mr Hazelgrove enclosed the following editorial which appeared in the Ottawa Journal of May 21st.

OTTAWA IS HIS MONUMENT

The Federal District Commission paused in its studies this week to pay tribute to John Kitchen, one of the builders of the more beautiful Ottawa that is in the making.

Mr Kitchen was an associate of Mr Greber in the preparation of the Ottawa plan, and latterly director of the National Capital Planning Service, an agency of the Federal District Commission. His death has grieved the F.D.C. commissioners, who spoke in deep appreciation of his loyalty, his devotion to his work, his professional competence, all added to "the gift of a logical and analytical mind."

John Kitchen was a good man for Ottawa, served this community well – and in no narrow sense but in appreciation of its unique place in our national life. He has left his imprint on the physical face of the capital, and generations who may never hear his name will benefit from the fact that he lived and labored.

CORRESPONDENCE

Letter from F. J. Hume, Mayor of Vancouver, to the Secretary of the Royal Architectural Institute of Canada.

Dear Mr Carroll,

It gives me great pleasure to take this opportunity on behalf of the Vancouver City Council to acknowledge the services rendered by the Royal Architectural Institute of Canada in respect to the recent Vancouver Civic Auditorium Competition.

It is certainly gratifying to know that some two hundred and sixty-two Architects throughout Canada applied for a copy of the conditions of the Competition, and that of this number some sixty-three submitted designs.

The efforts put into the preparation of these designs are in evidence in the following quote from the Board of Assessors:

"The assessors were very impressed with the amount of work produced by each contestant and by the generally high level of the designs and drawings submitted. Members of the architectural profession seem to have shown a remarkable interest in this competition and an ardent willingness to place themselves in competition with each other for the honour and privilege of being chosen architect for this project. This will have stimulated ideas on auditorium design which might offer some guidance in the preparation of the final scheme."

I am therefore writing to ask you to convey the appreciation of the members of the City Council for the interest shown by your organization and its members in this Competition.

We have been favoured, indeed, in having the services of Professor Fred Lasserre of the University of British Columbia who accepted the difficult task of being technical adviser to the City Council in this matter and has been of tremendous assistance to us.

Yours sincerely,

F. J. Hume

ALLIED ARTS MEDAL

The Royal Architectural Institute of Canada announces the 1955 award of its Allied Arts Medal. This silver medal is awarded each year for outstanding achievement in the fields of the arts allied to architecture.

This year's award has been made to Donald Cameron Mackay, painter and murallist, of Halifax, N.S.

Mr Mackay was born in Fredericton, N.B. and educated at Halifax Public Schools and Dalhousie University. He is a graduate of the Nova Scotia College of Art and has taken graduate studies in London and Paris. He was formerly an instructor of art at the Northern Vocational School in Toronto and the Toronto Art Gallery before returning to Nova Scotia where he is now the Principal of the Nova Scotia College of Art.

During the war, Mr Mackay served in the Royal Canadian Navy and was appointed an official war artist. In 1945, he became the Principal of the Nova Scotia College of Art and Honorary Curator of the Nova Scotia Museum of Fine Art. He has been a President of the Nova Scotia Society of Artists and the Maritime Art Association, a Vice-President of the Canadian Arts Council and the Canadian Society of Graphic Art and a member of the Artists Society of London, England.

Mr Mackay's pictures are in the National Gallery of Canada and other public and private collections. He has also carried out a series of murals in the Halifax Memorial Library and many coats of arms for buildings and organizations. He was one of the committee who assembled the exhibition "200 Years of Art in Halifax" which was held in 1949, the year of the Halifax Bi-Centennial.

PILKINGTON TRAVELLING SCHOLARSHIP

For the ninth consecutive year, a jury met in Toronto on May 17th 1955 to award the Pilkington Scholarship. The scholarship is open to students graduating in the fifth year of the five Canadian schools of architecture. All schools competed.

The jury consisted of D. Dunlop, University of Toronto; E. Fiset, Ecole des Beaux-Arts; G. D. Gibson, Pilkington Brothers; W. S. Goulding, University of British Columbia; J. C. Parkin, University of Manitoba and C. E. Trudeau, McGill University. Mr Gibson acted as chairman.

The successful students were as follows:

First – R. B. Archambault, University of British Columbia

Second – Ojars Biskaps, University of Toronto

Third – Evans St Gelais and Ferand Trembly, Ecole des Beaux-Arts (aeq.)

The monetary value of the scholarship won by Mr Archambault is $1,500 with his expenses to the United Kingdom paid by Pilkington Glass Limited.

PRIZES AND AWARDS

The School of Architecture, University of Toronto, announces the following awards made at the end of the session, 1955.

Fifth Year

Royal Architectural Institute of Canada Medal to R. E. Tustian

Toronto Architectural Guild Gold Medal to Y. Y. Jung

Wegman Fellowship of $1,400 to O. Biskaps

Anaconda American Brass Limited Scholarship of $300 to I. H. Petroff

Connolly Marble, Mosaic & Tile Company Limited Scholarship of $250 to O. Biskaps

Indiana Limestone Institute Scholarship of $150 to I. H. Petroff

Fourth Year

Argo Block Company Limited Scholarship of $200 to V. W. Liacas

Canadian Pittsburgh Industries Limited Scholarships

First Award of $150 to V. W. Liacas

Second Award of $100 to J. W. Ridpath

Third Year

Ontario Association of Architects Prize of $100 to C. S. Corneil

Toronto Brick Company Limited

First Prize of $75 to G. M. Buchan

Second Prize of $25 to J. E. Sievenpiper

Second Year

Ontario Association of Architects Scholarship of $200 to K. N. Robinson

Atlas Asbestos Company Limited

First Prize of $150 to W. S. Ballyn

Second Prize of $50 to E. Tannis

First Year

Turnbull Elevator Company Limited Scholarship of $250 to G. A. MacInnis

INCOME TAX RULING

The following is a judgment given by the Income Tax Appeal Board. The matter under discussion was architectural competition prize money, and Mr Vincent Rother was the appellant.

The taxpayer has appealed against his income tax assessment for the year 1953 by reason of the inclusion as part of his income for that year of an amount of two thousand dollars re-

ceived by him as an award for his entry in a competition for a design for a building to house the National Gallery of Canada.

The appellant is an architect and has been practising his profession for a number of years. In the year 1952, he entered a competition known as the "National Gallery of Canada Competition". This was a competition authorized by the Board of Trustees of the National Gallery of Canada and approved by the Government of Canada, provision having been made in its estimates for an amount sufficient to defray the cost of holding a competition to select an architect for the proposed new National Gallery building. The competition was open to all architects resident in Canada who were members of The Royal Architectural Institute of Canada.

Originally the competition was to be conducted in two stages (later amended to three stages). A Jury of Award, consisting of three members, was selected by the Trustees of the National Gallery, and this jury was to have the responsibility of deciding which contestants would be eligible to participate in the second stage of the competition. The proposed site of the new building was announced and participants in the competition were given a comprehensive list of requirements in respect of accommodation, lighting, etc., which were to be incorporated in the designs submitted. Each participant was required to furnish detailed drawings of his proposed design and, from a study of the designs submitted, the Jury of Award would select a maximum of six architects who would be eligible to participate in the final stage of the competition.

Sections 18, 20, and 21 of the terms of the competition read as follows:

"18. *Participants in the Preliminary Competition*

Participation in the preliminary competition is open to architects, resident in Canada who are members of The Royal Architectural Institute of Canada, and who have (mandatory) on or before June 28th, 1952, notified the professional adviser of their intention to participate in the preliminary competition.

It is agreed that this notification does not imply an obligation to submit drawings.

The professional adviser may require any person who has declared his intention to participate to submit evidence of his eligibility as defined above. If the professional adviser is not satisfied with such evidence, he shall notify said person in writing, and report his action and the reasons therefor to the jury of award. The decision of the jury, in respect to eligibility shall be final.

20. *Participants in the Final Competition*

Participation in the final competition is limited to a maximum of 6 architects who, having participated in the preliminary competition, are admitted by the jury of awards in the manner hereafter described (see items No. 31 and No. 32).

A participant in the final competition may submit a design developed by the said participant for the preliminary competition, or he may submit a new design having no relation to the earlier design.

21. *Awards*

Following the decision of the jury at the end of the final competition, each of the 6 (maximum number) competitors will receive $2,000.00.

The competitor placed first shall be given the commission to design and carry out the work of the proposed National Gallery. His award shall be absorbed in his fees. (See RAIC Code, item 6.c. for the conduct of Architectural Competitions.)"

The taxpayer, having submitted a design in the competition, was one of the six selected by the Jury of Award to participate in the following stages of the competition. Being one of the six selected, he was eligible for, and received, an award of two thousand dollars as provided for in section 21 of the terms of the competition. He submits that this two thousand dollars is not taxable as income in his hands.

The taxpayer is not an officer or employee of the National Gallery of Canada or of the Government of Canada. He did not receive the two thousand dollars in question in payment for services rendered nor as a fee. There were about one hundred entrants in the competition, all of whom submitted designs. Of this number, six, only, received any payment whatsoever, namely, the six chosen by the Jury of Award. The design submitted by the appellant was not one which would necessarily be used by the Trustees of the National Gallery of Canada or the Government of Canada for the construction of the new building to house the National Gallery because, as indicated in the second paragraph of section 20 (quoted above) of the terms of the competition, a participant in the final competition could submit an entirely new design for the building if he so desired once he had been selected by the Jury of Award as one of the six finalists.

The sole purpose of the original competition was to select from among the contestants six architects who, in the opinion of the Jury of Award, were best qualified to design a new building for the National Gallery. The six architects so selected would then enter a further stage of the competition in order that, by a process of elimination, one of these six would be commissioned to design and carry out the work in connection with the proposed National Gallery building. There was a certain element of chance in the competition, as the selection of the six architects in question would depend, not only upon the quality of the designs submitted by themselves and the other competitors, but also upon whether the designs met with the approval of the individual members of the Jury of Award who might have strong preferences or prejudices, likes or dislikes, of which the individual contestants were unaware. The payment of the two thousand dollars could not be considered to be the purchase price of the design submitted, as section 34 of the terms of the competition provided that all the drawings, with the exception of those submitted in the final competition by the architect actually commissioned to build the National Gallery, would be returned to the participants in the competition.

After consideration of all the facts in connection with this appeal, I have reached the conclusion that the payment in question was not a payment for services rendered and was not a fee, but was in the nature of a prize or gratuitous award received in the course of a competition. In my opinion, the two thousand dollars in question herein was not taxable as an income receipt and, accordingly, this appeal is allowed.

W. S. Fisher, Member

NOTICE RE LEGAL DOCUMENTS

RAIC Document No. 12, the Standard Construction Form of Construction Contract for Stipulated Sum, will be available shortly to the members in a slightly revised form. This revised form will be marked "6th Edition, revised and reprinted, May, 1955".

Those who have the 5th Edition need not discard it if they wish to change it by hand. The only change in the 6th Edition is as follows: Article 26 – at the end of the paragraph add the following: "and may be withheld if the Architect has received information that payments due to Sub-Contractors have not been made."

CONTRIBUTORS TO THIS ISSUE

C. R. Hiscocks, D.Phil., is Professor and Chairman of the Department of Political Science and International Relations at The University of Manitoba.

Born in London, England, Professor Hiscocks served as a Lieutenant-Colonel in the Royal Marines during the last war and was the British Council Representative in Austria for three years, then in India for two years.

Since joining the staff of The University of Manitoba he has published a book, "The Rebirth of Austria", and

has been actively connected with the Winnipeg Art Gallery as a member of the Board of Directors and as Chairman of its Exhibition Committee.

Angus Macdonald is a Canadian. When eighteen years old he went on a six months painting trip to France where he encountered the glass in the churches. The disparity between these and the terrible things at home in Canada gave him the idea that good glass itself was no longer available.

Painting and carving on the side, he went through the usual stages of making a living by designing, decorating interiors with the odd mural commission, and advertising.

Suddenly, ten years ago, he found out that the beautiful glass was still being made in the older countries. He started experimenting at once, and, after five years, made another long trip to Europe to check his theories, against the work of the centuries. He then launched in to the medium on a full time basis. Mr Macdonald is at present engaged on a large window for the cathedral in Sault Ste. Marie designed by Rounthwaite & Fairfield.

John A. Russell (F) is Professor and Director of the School of Architecture at The University of Manitoba.

Born in New Hampshire, he took his undergraduate and graduate degrees in architecture at the Massachusetts Institute of Technology and studied at the Fontainebleau Summer School of Fine Arts. Since joining the University staff in 1928, he has been actively interested in local theatrical productions, the Royal Winnipeg Ballet, the Winnipeg Art Gallery, and town planning, in addition to his major activities in architectural education.

AN ART CENTRE FOR WINNIPEG?

(continued from page 225)

Thirdly, the Art Centre would be of particular value to those coming into Winnipeg from the country. It is with such people in mind that during my association with the Winnipeg Art Gallery I have always maintained that special emphasis should be laid on the permanent collection at the Gallery. I once travelled down from Churchill by plane with a Catholic Priest who had just spent seven years in a remote post on Hudson Bay. He was coming first to Winnipeg and then going on to New York and Rome. But he was a member of that astonishing international organization, the Roman Catholic Church. For many people living in such remote places Winnipeg is their Rome, and we must make it a worthy place of pilgrimage.

Finally, many Americans and tourists visit our Art Gallery during the summer, as it is. If we had a fine Art Centre, many more would do so: it would, in fact, act as a tourist attraction. Tourists benefit the City and Province as a whole, not merely the art loving and public-spirited citizens; and this is another reason why the City and the Province should give an Art Centre their support. It was very good news to hear a month or so ago that the Provincial Government had given $5,000 to the Royal Winnipeg Ballet. It took the tragedy of the fire to bring this about, just as it took the Second World War to induce the British Government to found the Arts Council. It would not be very difficult for the City and Province each to contribute to an Art Centre 1% of their annual revenues, especially if the contributions were spread over two or three years. And in the history of Manitoba and Winnipeg the memory of such an act of foresight and wisdom would long outlive those responsible for it.

We need in Winnipeg, Manitoba, in this rather isolated area of the earth's surface on which we live, an Art Centre conceived on broad and imaginative lines; a centre of which we can all be proud, because the poorest as well as the richest have contributed to it; a centre which will satisfy our pride as democrats in the form of government under which we live.

The above was one of the February Lecture Series presented by The University of Manitoba.

FUTURE ISSUES

July	Saskatchewan
August	Japanese Architecture
September	Montreal General Hospital
October	Ottawa
November	Projects on Paper

O CANADA

O Canada is about to die a second death unless members come forward immediately with plasma in the form of snapshots of odd canadiana

BOOK REVIEWS

CLIMATE AND ARCHITECTURE by Jeffrey Ellis Aronin. Published by the Reinhold Publishing Corporation, New York. Price $12.50.

It is more than a pleasant play on words to say that the interrelation of weather and building is a subject very much in the air at the present time. There has been a remarkable display of interest in this correlative study in the years since the close of the second world war. This is a healthy sign since it augurs well for improving architectural standards and also for assisting in the wider recognition of the value of climatological studies. Conferences have been held, committees have been at work, climate has been recognized in a building code, a climatic atlas has been published, and now a large volume has been issued dealing with the subject of climate and architecture.

In order to give a review of this volume its proper setting, a brief preliminary note on these recent developments with regard to weather and building may be helpful. One of the many constructive results of the last war was the wartime study of environmental control carried out through the Quartermaster's Corps of the American Army, which pointed to the need for an accurate delineation of limiting climatic factors. Some of those who worked on this wartime project were invited to apply their special knowledge to civilian building problems by the editor of one of those excellently produced, somewhat popular magazines which are so striking a feature of the current American scene. The editor of *House Beautiful* initiated, in 1948, what has been called a "crusade" for improvements in climatic control in housing. As a result, there appeared in regular issues of this magazine a succession of articles describing the limiting climatic factors in various regions of the United States and the application of this information to domestic architecture not exactly in the low-cost category. The project attracted much

attention. The information was published in an amended form by the American Institute of Architects[1].

This crusade has been considered a notable contribution to general understanding of the importance of climate in relation even to the restricted field of house design and construction. Although those responsible for the project dealt with it strictly in terms of current practice, they would probably be the last to suggest that their approach was entirely new. They may have adopted as their initial thought an interesting statement of Francis Bacon which might even be regarded as a forecast of some modern architecture: "Cast it (the house) also that you may have rooms both for summer and winter; shady for summer and warm for winter. You shall have sometimes houses so full of glass that one can not tell where to become to be out of the sun or cold."

The diagrams which Dr Siple and his colleagues produced for *House Beautiful* are extremely clear and easy to use. They follow in a long tradition of which possibly the most interesting contribution has been the hythergraph which was for so long a feature of publications of Professor Griffith Taylor. Partially as a result of this project of *House Beautiful*, a conference was held in Washington on 11th and 12th of January, 1950, under the auspices of the U.S. National Research Council, to consider "Weather and the Building Industry". This was the first conference to be organized by the (American) Building Research Advisory Board. This Board is not an active laboratory research organization but has as one of its principal functions the convening of research correlation conferences. This first meeting was called to consider climatological research and its effect on building design, construction, materials and equipment. The meeting was attended by two hundred and fifty, including several Canadians and two South Africans. During the course of a day and a half many papers were presented, some of them recapitulations of the *House Beautiful* work, others dealing with various aspects of climate, with special reference to human comfort and domestic architecture. The papers were published in convenient form as a volume of one hundred and sixty pages[2]. At the end of this there is a bibliography of about two hundred items which is an indication of the wide attention which has been paid to climate in relation to building.

This development has been noted in some detail since it was so closely linked with architecture. There have been a number of older projects of a similar character in engineering circles, amongst which the studies and publications of the American Society of Heating and Air-Conditioning Engineers (formerly A.S.H.V.E.) are outstanding. Similar interest in climatic factors regarding the services in buildings have been reflected in recent work and publications from both Australia and South Africa.

There was good reason, therefore, for a critical assessment of climate in relation to building when the National Building Code of Canada was revised, under the auspices of the N.R.C. Associate Committee on the National Building Code. It was decided that if Canada's building code was to be truly national, the varying climate of Canada had to be recognized in it. Accordingly, a special committee was set up and, to its direction, work was carried out for two years by the climatologist of the N.R.C.'s Division of Building Research. The results of this work are now well known throughout Canada. The National Building Code of Canada (1953) includes a special section on climate, consisting of twelve key maps with explanatory notes[3]. What is not so well known is that this work resulted in so much information being assembled that it was possible to prepare in addition a *Climatological Atlas of Canada* which includes over eighty maps and over twenty hythergraphs[4]. When used together, these give a reasonably complete coverage of all the climatic factors which may be thought of as affecting building throughout different periods of the year in all parts of Canada. This Atlas is the first volume of its kind ever produced; it is an essentially factual document with no comment or expressed opinions in it. Despite this, reviews which are already appearing in scholarly journals are unusually favourable and suggest that it is a document which will prove to be of wide use.

The time was therefore ripe for the appearance of an authoritative work explaining to architects the close inter-relations of climate and building. A warm welcome was therefore given to a book with this expressed purpose which appeared about one year ago. It is one of the well known Progressive Architecture Library, each volume of which "is carefully planned to include accurate, up-to-the-minute information on its subject. Quality of subject matter and authorship are essential, but these books are also beautifully designed and handsomely produced" by the publishing house responsible for the magazine which is stated to have "the largest architectural circulation of the world". The quotations come from the statement which appears on the back of the volume under review. It has 304 pages, 291 illustrations and a bibliography of 290 titles. It is therefore a most impressive and imposing production. The effort which has gone into its compilation is evident in many ways and is the more remarkable when the relative youth of the author is considered.

The volume is a most handsome piece of book production and in appearance lives up fully to the high publishing standards of its sponsors. The subject matter certainly warrants inclusion in the distinguished library of which this volume is the latest addition. The printing and layout are unusually effective and the use of high quality paper in 9 inch by 12 inch size adds distinction to the book and makes it pleasant to handle. It is when a reviewer has to go beyond this point that his difficulties commence. On the one hand he can dismiss the contents with a few succinct phrases which will give a general impression of the character of the book; this has been the course followed by some of those whose reviews have already been published. The only alternative is to make a some-what lengthy critical analysis of the contents of the book, since it is one of those productions for which there is no possible middle course if a review is to be effective.

The present reviewer has elected the second course for a number of reasons, not the least of which is that this book, although published by an American house and written by an author now resident in the United States, is closely associated with Canada. The author is understood to be Canadian and many of the references in the book are to Canada and Canadian practice, the two principal acknowledgments being to members of the staff of a great Canadian university. A further reason is the vital importance of the subject matter of the book to Canadian architects in particular, in view of the unusual and varying climatic conditions to which Canadian buildings are subject. Finally, and since the reviewer has the pleasure of knowing the author and therefore of appreciating the sincerity of his approach, it seems clear that a reasoned and constructive consideration of the way in which this work has been compiled may prove to be a useful service to architecture in Canada. With this in view, the reviewer has read every word of the book, even though this was not too easy a task. There is so much that could be said about it that selection of those points which should be mentioned has required much reflection. It is for this reason that this review is so late in appearing. The subject matter, however, is a perennial one so that, although the appearance of the book was so timely, this slight delay in Canadian comment upon it should not be too serious.

The book is divided into major sections dealing with the Sun, Temperature, Wind, Precipitation, and Other Climatic Factors. The allocation of the space allotted to each of these topics is somewhat uneven but this was inevitable and is not too serious

1 See, for example, "What is Climate Control". House Beautiful, New York, vol. 92, n. 10, October, 1950, pp. 174-178 and p. 220.

2 "Weather and the Building Industry", Building Research Advisory Board Conference. Report No. 1, Washington, 1950. National Research Council, 159 pages.

3 "Climate" Part 2, National Building Code of Canada (1953), 28 pp. National Research Council, Ottawa. (NRC No. 3190).

4 "Climatological Atlas of Canada". M. K. Thomas, 255 pp. National Research Council, Ottawa. (NRC No. 3151) 1953.

a factor apart from one aspect only which will be mentioned later. The book starts with a quotation. As one reads on, one finds that almost one-half of the total book is made up of quotations, about three-quarters of the first chapter consisting of extracts from other works. Some of these are delightfully contradictory, but one has difficulty in checking them since there are no references given to quotations until page 94 is reached. Even more surprising is the fact that quite a number of the quotations are "re-quotations".

This feature of the book makes clear the vast amount of reading which the author did in preparation for his writing. This is reflected in the long list of references which form so prominent a feature of the volume. This bibliography is impressive until one notices that included in it is *Pride and Prejudice* by Jane Austen, the author's comments on this book being ". . . not a reference book on the subject of this book. There are, however, one or two comments on architectural practice in the design of residences." This is slightly puzzling, but when one comes to a listing of a paper from the Quarterly Journal of the Royal Meteorological Society to which the author has appended this note, ". . . the author has not read this work, therefore no comment is offered," one beings to wonder how valuable the bibliography really is. There are other references listed which the author states, quite frankly, that he has not read. When, however, one finally comes to this statement "should be good reading. The author has not read it," and when one finds Webster's New Collegiate Dictionary listed as one of the technical references, one begins to wonder about the advice which the author received from his professional advisers and from his publishers.

The publishers' advice again comes to mind as one studies the remarkable collection of almost three hundred illustrations which add so much to the appearance of the volume. There are many excellent photographs and a wide variety of diagrams, most of them well reproduced. The entertainment value of the illustrations reaches its peak on page 60 on which appear four views of singularly attractive young women in various aspects of sun bathing, presumably included to indicate the importance of solar radiation, although the building significance of the models is somewhat elusive. It is even more difficult to see the relevance of some of the other photographs such as a splendid view of a lone skier on a snow field entitled "Lapland", a picture of the sea at Atlantic City, a view of muskeg at Churchill, a view of an engineering model of the Missouri River and some fine pictures of snow blowers in action. Remembering the usual rigid limitations on the inclusion of photographic illustrations in technical books, one is forced to wonder why the publishers of the volume under review allowed such interesting but irrelevant diversions to be included in this volume.

One's surprise at the attitude of the publishers to the book is increased when one notices some of the somewhat unusual statements of the author which have been printed. For example, in the introduction the author himself says that the book may be used for "ordinary reading, written as it is in a light vein", a strange contrast indeed to the publishers' statement on the cover. It is a little more remarkable to come across such a statement as this, "If, therefore (this information), is unintelligible to the reader by virtue of its being out of place, he should not worry about it." Presumably the publisher did not worry about it either, but one would have expected a technical publisher to be worried about including such statements as "during many of the winter months in areas like Quebec, the sun does not shine very much" and "the temperature of the air is determined by means of a thermometer" and "all types of fog are nuisances and efforts should be made to avoid them or to dispel them wherever possible." The idea of architects as a group starting on a programme of fog dispersion is fascinating.

If these quotations were not typical of many of the statements of the author, obviously written with good intent but without due attention to their real meaning, it would not be proper for them to be mentioned. Unfortunately, however, they are typical and indicative of a further feature of the book which intensifies still further one's inability to understand why the publishers printed the book as it stands. This is the inclusion of large sections which deal with interesting but somewhat irrelevant subjects. On page 120, for example, the author himself says that certain information he has been presenting "has very little architectural significance". Other statements are stated to be "possibly useful" but at least one subject has this comment appended to it by the author, "most architects, however, will have little occasion to make use of this piece of intelligence". As illustrating what can only be described as the padding in the book, it may be noted briefly that appreciable space is devoted to such subjects as the influence of forests on rainfall, grass sowing, the location of snow fences on roads, infiltration into soil, sidewalk heating, snow removal from city streets and floods in general. One must admire the author's wide range of interests which is so well shown by his broad coverage and by the frequent occurrence in the book of such things as references to Quito, the Yukon, Siberia, the Rockies, the Alps, and Medicine Hat all in twenty lines. One is reminded of Stephen Leacock's rider who leapt on his horse and rode off in all directions. The author probably did not realize how appropriate is the quotation from Hamlet with which he brings his book to a close, "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy".

What of the solid content of the book? Despite all the irrelevancies there is a good deal of solid factual information included, well presented but almost completely undigested. Eighty-seven pages are devoted to the sun and various aspects of solar heating which presumably the author considers to be a good thing, although he qualifies this by saying that "mechanical ventilation sometimes is almost a prime necessity in solar designed rooms. Even with all that the architect can do, the rooms may become overheated". After this comment it is not surprising to find that the word "economics" does not even appear in the index. Forty-nine pages are devoted to temperature, two of which are used to describe how to read a thermometer. Despite the tremendous influence of temperature variations on building structures, the matter of insulation does not come up for discussion in this part of the book. The only reference to insulation in the index directs one to a statement about the use of snow to provide insulation on the outside of buildings. The author says (page 24) that "many heating engineers as well as architects would find it useful to know on certain occasions the average or probably maximum length of heat or cold waves". Presumably the author, in his wide reading, did not come across the long-standing concepts of degree days and design temperatures so well established in engineering circles and which are exactly the sort of thing which one would expect to have been discussed fully in such a volume as this.

Fifty pages are devoted to a study of wind. These pages include an excellent description of town planning and town siting. One reads these fine accounts with the expectation that lessons will be drawn from them, but one is disappointed since only the undigested facts are included. Forty-five pages deal with precipitation and it is in this part of the book that the author manages to stray so very far afield. There is much about snow and about floods but singularly little about the influence of precipitation on the form of buildings or upon the performance of materials. There follow four pages of lightning and protection against lightning and then, at long last, the subject of humidity is mentioned and is dignified by a section to itself.

This section is exactly three pages long. In the second paragraph the author explains that double glazed windows "do eliminate many other problems, besides those of condensation. For the same reason condensation will form on the inside of walls in winter, and it is therefore imperative that architects provide vapour barriers and insulation to prevent this occurrence". One wonders how the author, who does not appear to know that although surface condensation can be eliminated by the use of insulation, condensation within walls which vapour barriers are intended to prevent is encouraged by the use of

insulation, managed to have even a student thesis on the subject of climate and architecture accepted, let alone a book published so splendidly and by such a well-known publisher as the volume under review.

It will now be clear to readers of this review why the reviewer considers it necessary to go into such detail over the contents of this beautiful volume. All architects in practice will know that there is no problem related to winter climates which causes such difficulties in building design as that concerning the proper use of insulation and the inevitably associated problems of possible condensation. The importance of humidity control in buildings was well shown by the symposium on this subject which proved to be so acceptable a feature of the last annual meeting of the Royal Architectural Institute of Canada[5]. To find this major problem, located in the final two or three pages of this large volume, and there to find so puerile a statement as that quoted above, given as a guide to architectural design, forces one to the conclusion that this volume, despite its attractive appearance and despite the obvious care and effort which the author has devoted to it, should never have been published in its present form. The beauty of its format intensifies the danger of the almost misleading information which it contains.

Canadian readers will be particularly concerned at the emphasis placed upon Canadian affairs, in view of the superficial character of the volume. One cannot help wondering what the authorities of McGill University must think of the book, in view of the prominence given to that ancient seat of learning throughout the volume. There are, for example, about a dozen illustrations taken on the McGill campus, most of them to illustrate some defect of building design. The two professional advisers to whom the author pays tribute are relatively senior members of the staff of McGill. One of them fortunately escapes further notice but the other, Professor F. K. Hare, Head of the School of Geography, is quoted by the author more frequently than almost any other authority, sometimes twice on the same page. Presumably Professor Hare has approved of the book and of the references to his own work so that one may properly record surprise at his quoted statement (especially coming from a geographer) that "Micro-climatology is a very unexact science". Presumably this refers to another quoted statement of Hare that "one of the best ways of determining the direction of the wind is without using any instruments whatsoever". Possibly Dr Hare's comment has relation to the interesting but somewhat amateurish experiments of the author conducted at and around the McGill campus, to which a few pages of the volume are devoted. In admiring the author's enterprise, one's feelings are tempered by the complete lack of judgment with which these rather questionable experiments are considered in relation to authoritative material. One's concern for the references to McGill University are heightened by the statement that one of the author's experiments, to which he devotes a paragraph, was carried out "during the course of a McGill matriculation exam which he was invigilating".

Regret at the thought of such real enthusiasm for a subject and such an obvious devotion to study so poorly guided and so ineffectually directed, is perhaps the main impression which this book leaves upon this reviewer. There is on the one hand such an obvious need for a broad general discussion of the philosophy of building in relation to climate, and on the other hand such an urgent need for a sound handbook which will assist the architect of today in his consideration of those climatic factors which must be considered in modern building design. Unfortunately, the book under review fulfils neither of these functions. It was clearly intended to meet the second need in particular but the rather obvious feelings of the author with regard to engineers and engineering provided an initial obstacle to the further development of this part of his project. The fact that neither "engineers" nor "engineering" are included in the index is clear indication of the basic lack of appreciation on the part of the author that in no other branch of building activity is cooperation between engineers and architects so vital as in dealing with climate, both interior and exterior. Consider the following statements from the book: – "control of the sun by insulating is a subject which really belongs within the realms of the heating engineer"; "the incorporation of this information (radiation studies) in the design of heating systems is the job of engineers"; "only a brief discussion will be offered on the subject of temperature and humidity for fear of trespassing too much on a matter that can be handled more appropriately by a heating engineer"; and "we can also investigate the influences of climate on the human body and how the body's needs can be accommodated by architects in building design. The role of mechanical engineers commands attention, and landscaping is not to be ignored". The equating of the engineering design of buildings with landscaping is a comment which can best be left to speak for itself.

Fortunately, the book will probably not be seen by many engineers since it will not assist in the eminently desirable strengthening of mutual respect and cooperation between the two professions. Unfortunately, because of the standing of its publisher and the beauty of its format, the book will probably find its way into the offices of many architects. Those with experience will soon see the serious limitations of the book, but the impressionable minds of younger architects and especially of students will be seriously confused by its entire approach and actually misled by many of its detailed sections, despite the excellent expressed intentions of the author. One can but hope that the author will not be discouraged by the reviews of his book but will rather take them to heart, applying his enthusiasm and obvious capacity for work, as he gains experience, to a complete and drastic revision of his work so that in due course its contents may be as good as its format and architects provided with a reliable guide to the correlation of climate and architecture.

R. F. Legget

THE LOST ART, A Survey of 1000 Years of Stained Glass by Robert Sowers. Published by George Wittenborn Inc., New York. Price, $4.00.

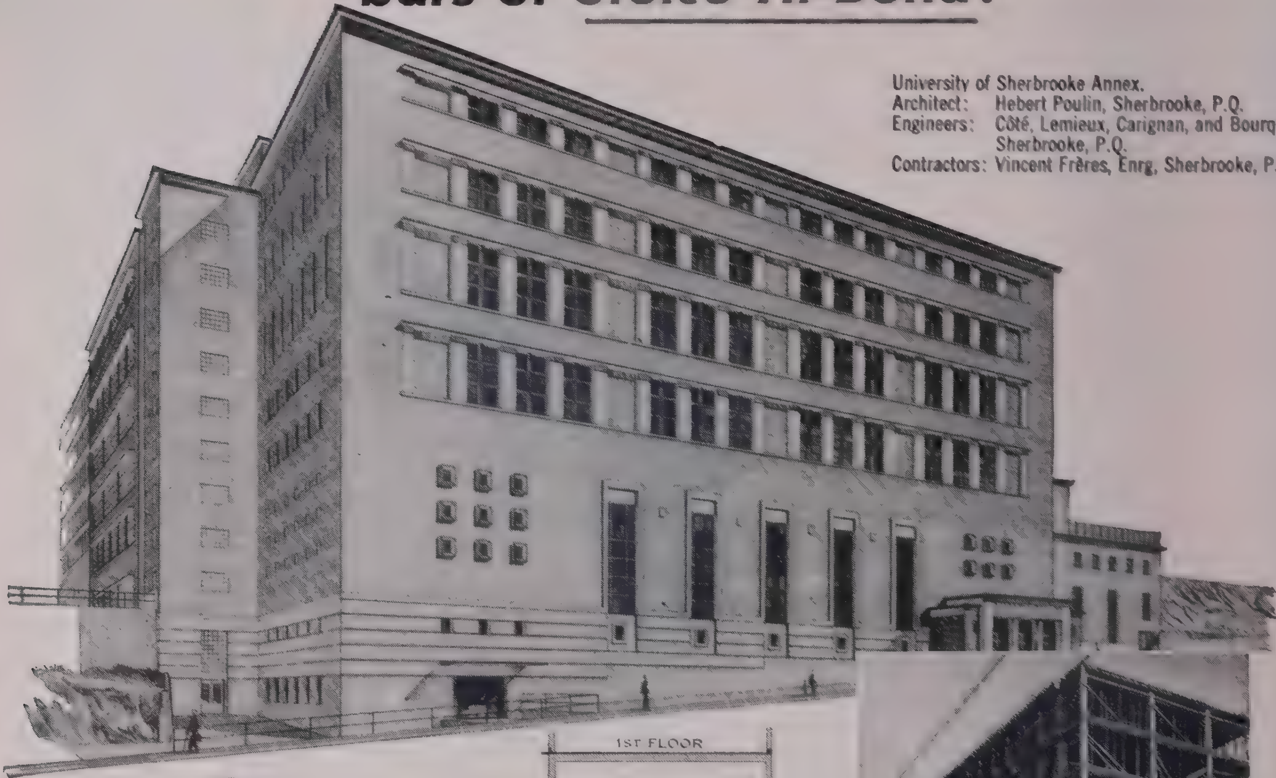
In format, type and colour this is an excellent book for the modest sum of four dollars. The text by Robert Sowers, who is both practitioner and author, should be read with profit and enjoyment by architect as well as craftsman. Historically, Mr Sowers traces the development of stained glass from the fourth century to the contemporary revival. Inevitably, his illustrations are of ecclesiastical examples, but Mr Sowers is fully alive to the possibilities of colour in glass in contemporary architecture. In an architecture where glass and light play so important a role, it is extraordinary that stained glass plays, at the moment, so unimportant a role.

Perhaps it is that Mr Sowers and his fellow craftsmen have a hard time living down the portraiture of the nineteenth century when design in stained glass reached its lowest point. In his introduction to the book, Sir Herbert Read writes–"The modern architect is usually afraid of colour, especially of intense colour, and rather than use it, would condemn people to worship God in a white glare of antiseptic austerity. As for any use of stained glass in other than ecclesiastical buildings, the thought never occurs to him". He points out that "the guiding principle of translucency has been re-established" and that that principle has been demonstrated magnificently by Matisse at Vence. He goes on to say that "if the architect client cannot afford a Matisse, there are plenty of young students of this craft, eager and able to demonstrate their skill".

Eric Arthur

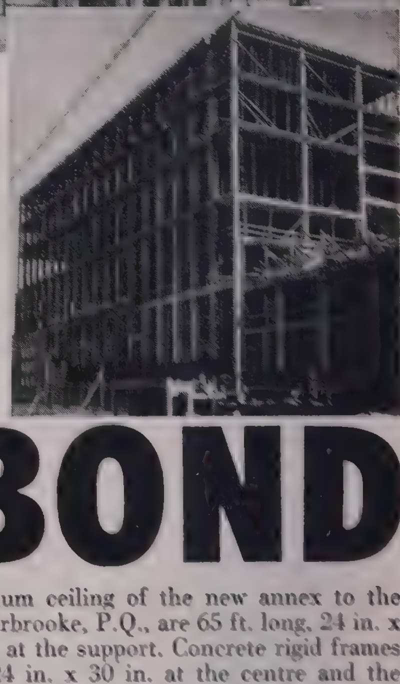
[5] See, for example, "Control of Water Vapour in Dwellings" by N. B. Hutcheon (pp. 204-207) and "Condensation in Industrial Building Construction" by G. Lorne Wiggs (pp. 208-212) *Journal* RAIC June 1954.

65 ft. concrete beams reinforced with 70 ft. bars of Stelco Hi-Bond!



University of Sherbrooke Annex.
Architect: Hebert Poulin, Sherbrooke, P.Q.
Engineers: Côté, Lemieux, Carignan, and Bourque, Sherbrooke, P.Q.
Contractors: Vincent Frères, Enrg, Sherbrooke, P.Q.







HI-BOND

Concrete rigid frames for the auditorium ceiling of the new annex to the UNIVERSITY OF SHERBROOKE, Sherbrooke, P.Q., are 65 ft. long, 24 in. x 36 in. at the centre, and 24 in x 48 in. at the support. Concrete rigid frames for other floors are 65 ft. long, and 24 in. x 30 in. at the centre and the support. STELCO "HI-BOND" BARS, used exclusively for the reinforcing in this structure, were supplied in 70 ft. lengths, in sizes up to 1¼"s.e.

Stelco "Hi-Bond" Bars are rolled only from *new billet* steel . . . ensuring uniform quality, and RELIABLE, TROUBLE-FREE FIELD BENDING. They conform to C.S.A. Specification G 30-48 and A.S.T.M. Designation A 305-51.

The present supply position is good. Stocks are available in all sizes, for all needs . . . AT PLAIN BAR PRICES! Contact your nearest Stelco Sales Office for prompt attention to your requirements.

THE STEEL COMPANY OF CANADA, LIMITED

Executive Offices: Hamilton — Montreal

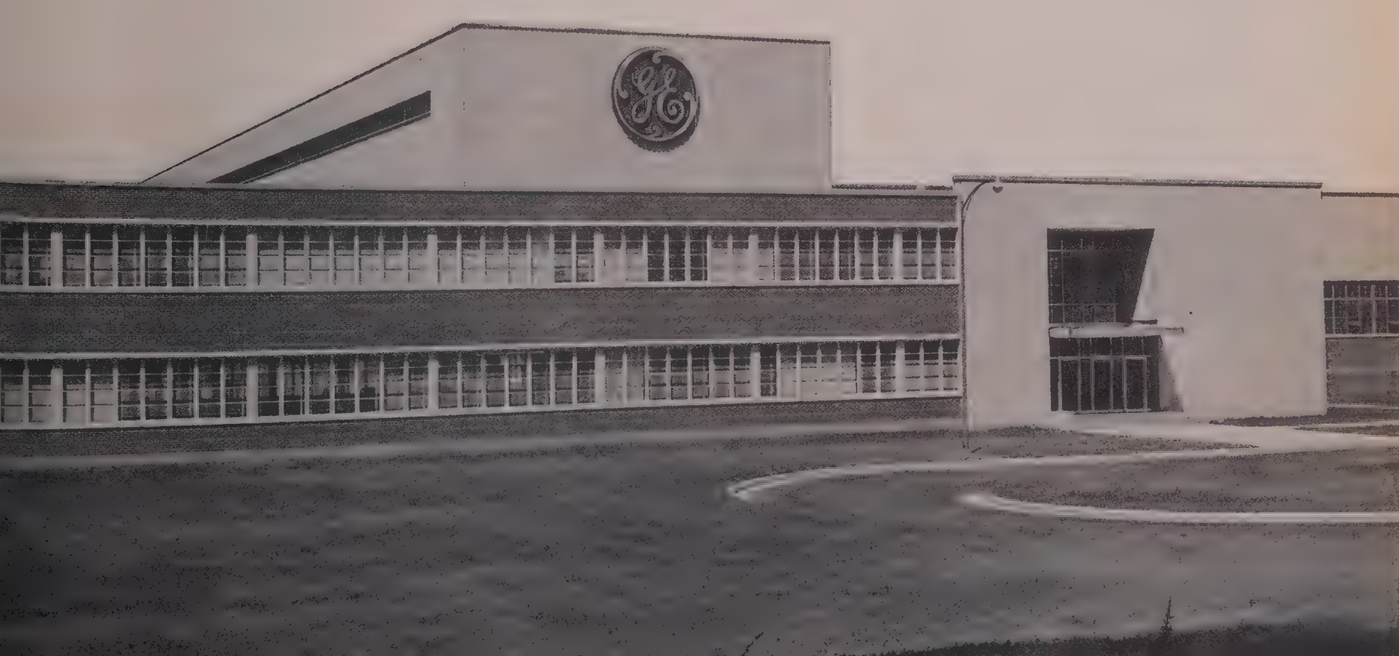
Sales Offices: Halifax, Saint John, Montreal, Ottawa, Toronto, Hamilton, London, Windsor, Winnipeg, Edmonton, Vancouver. J. C. Pratt & Co. Limited, St. John's, Newfoundland.

55062.B

Canada's Growing Economy



THOSE WHO are sometimes afflicted with gloomy thoughts, born of lesser days in our country's growth, should find courage in the sights they see around them. Industrial expansion, by companies long versed in the way of trade winds, is based on neither chance nor whimsy. Decisions are the result of sound economic research and a "seeing eye" that penetrates the future. Indicative of this is the new Canadian General Electric Transformer Plant at Guelph, with a floor space of 347,000 square feet. This is an immense addition to the manufacturing facilities of Canada's electrical equipment industry. It was our privilege to provide the insulated asbestos-cement panels which sheath large areas of these buildings.





Above: Aerial view of the new Canadian General Electric Transformer Plant, at Guelph, Ont. Plant and satellite buildings occupy 60 acres of the 260 acre site. A large part of the remainder is ticketed for future expansion.



POWER HOUSE — sidewalls of Turnall, asbestos-cement, insulated panels with Trafford Tile exterior.

THE ASBESTOS-CEMENT SIDEWALLS of the new Canadian General Electric Transformer Plant at Guelph, Ontario combine excellent weathering qualities with a pleasing appearance both inside and outside. The exterior is Turnall Trafford Tile and the interior is Turnall Densite Flat Sheets 3/16" thick to which is laminated a 1" thickness of insulation board. A feature of this type of sidewall construction is that neither the exterior nor interior need ever be painted and can readily be washed down should the occasion demand. Other outstanding attributes include the ease and speed of erection, resistance to fire and remarkable insulation values. Interior partitions inside the plant consist of 4' x 8' panels made of 3/16" thick Turnall Densite laminated to both sides of a 1" core of insulation board.

Consulting Engineers:
PROCTOR, REDFERN & LAUGHLIN

Associate Architects:
SPROATT & ROLPH

Contractors:
FOUNDATION COMPANY OF CANADA LTD.

Applicators of Turnall
Asbestos Cement Sidewalls & Panels:
HEATHER & LITTLE.

This is a view of the west side of the new Transformer Plant of Canadian General Electric Co. at Guelph, Ontario.



View showing east side of building



View showing front of the building



ASBESTOS-CEMENT

Turnall

TRAFFORD TILE

Methods of Insulating

Trafford Tile can be effectively insulated in several ways. Our Sprayed "Limpet" Asbestos is a highly efficient method which provides a tight, seamless seal that closes every crevice. Other methods make use of insulating board or insulating batts. The board or batts are backed with Turnall Flatboard. Conditions, costs and results required are the determining factors as to method. Our branch offices are well qualified to discuss with you the matter of applying and insulating Trafford Tile.

SPECIFICATIONS

Purlin Spacings up to 4′ 6″.

Side or Gable Girts spacing up to 6′ 0″.

Standard lengths from 2′ to 10′, rising by 6″ increments.

Standard width, 3′ 8″.

Net covering width when laid, 3′ 4″.

Cover efficiency, 86 per cent.

Thickness, 9/32″.

Number of corrugations per tile , 4.

Pitch of corrugations, 1′—1 -1/3″.

Depth of corrugations, 2″.

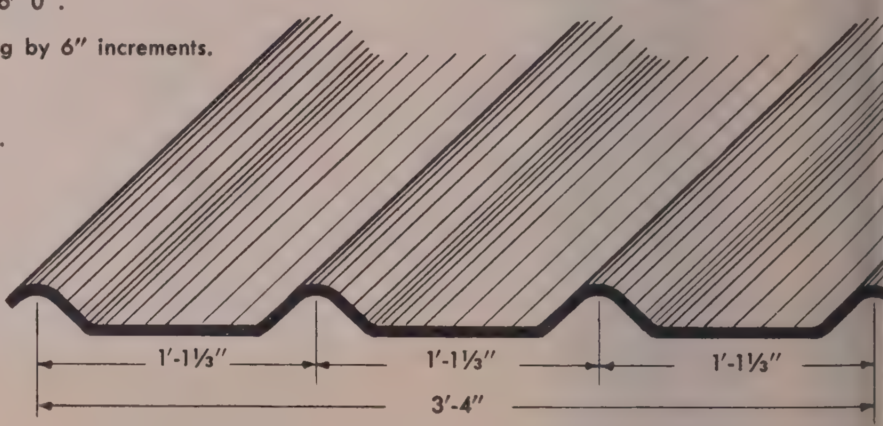
End lap, 6″.

Side lap, 4″ (1 corrugation).

Actual cover of 8′ tile as laid, 7′ 6″ x 3′ 4″ — 25 sq. ft.

Weight—Approx. 3 lbs. per sq. ft., uncrated.

DIAGRAM SHOWING SECTION OF TURNALL TRAFFORD TILE



Weight of 100 sq. ft. of laid roofing, approx. 351.8 lbs

118 sq. ft. of tiling covers 100 sq. ft.


Belleville
Hardware of Distinction
Architects who have specified
"INTEGRA LOCKS"
find that they really do a job
. . . your enquiries invited
Integra Lock
the sealed unit
Belleville Lock Company Limited
Belleville, Ontario





ONLY

TOWER *Deluxe*

VINYL TILE FLOORING

OFFERS SUCH EXCEPTIONAL VALUE . . . AT SUCH MODERATE COST

Tower Deluxe Vinyl is an 80 gauge laminated tile with a Vinyl base. It is a very beautiful flooring, extremely durable, stainproof, greaseproof, resilient, and requires a minimum of maintenance.

It has a permanently smooth, non-porous, mirror surface that defies permanent marking and scuffing . . . colour fast too!

You are invited to write for complete information.

*14 rich colours



*Colours not shown are: 5244 Light Green, and 5246 Coral.

CANADIAN PLASTICS ACHIEVEMENT AWARD

1954 WINNER TOWER VINYL FLOORINGS!

FIRST AWARD . . . *for design and quality*

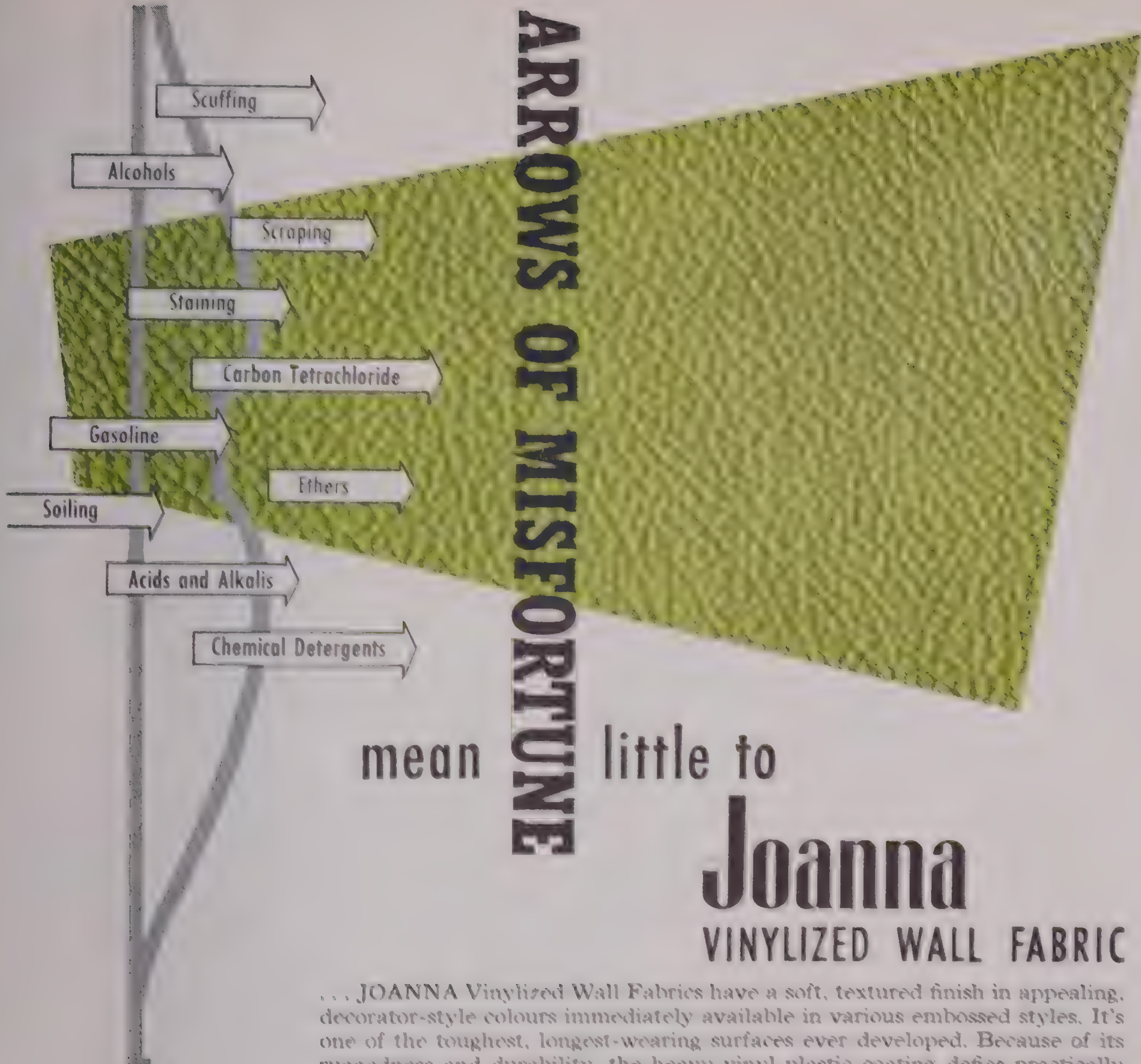
MADE IN CANADA FOR CANADIANS BY

CANADIAN GENERAL TOWER LIMITED

GALT, ONTARIO

TWICE THE WEAR WITH HALF THE CARE.

54 3



ARROWS OF MISFORTUNE mean little to

Joanna

VINYLIZED WALL FABRIC

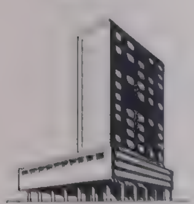
. . . JOANNA Vinylized Wall Fabrics have a soft, textured finish in appealing, decorator-style colours immediately available in various embossed styles. It's one of the toughest, longest-wearing surfaces ever developed. Because of its ruggedness and durability, the heavy vinyl plastic coating defies practically every type of punishment. Scuff it, scrape it, rasp it with a file — makes no difference to JOANNA Vinylized Wall Fabrics. To clean it just use soap and water or any ordinary cleaning solution.

Colours will not fade or bleed even under prolonged exposure to direct sunlight — the colour you choose today will retain its original freshness for decades.

JOANNA Vinylized Wall Fabric is tested and classified for resistance to fire by the Underwriters' Laboratories of Canada.

When you specify JOANNA Vinyl Wall Coverings you are favouring your clients with a very attractive material which will save them the considerable expense of regular redecorating costs.

Talk over your wall covering problems with Daly & Morin Limited — headquarters for low cost vinyl wall fabrics. Made at Lachine, P.Q. Send coupon for samples and literature.



OFFICE and APARTMENT BUILDINGS



HOTELS and HOSPITALS

DALY & MORIN LTD.

440-19th Avenue, Lachine, P.Q.

Manufacturers of

Cloth and Plastic Window Shades — Plastic Coated Upholstery Fabric

PLEASE send me details on Joanna

ULC

To Daly & Morin Ltd., Wall Covering Division, Lachine, P.Q. 55-1

Name..........

Address..........

City.......... Prov..........



Your clients are already acquainted with **BASEBOARD HEATING** *through national magazine advertising.*

You can confidently specify **DUNHAM BASEBOARD** *for comfort, health and decor.*

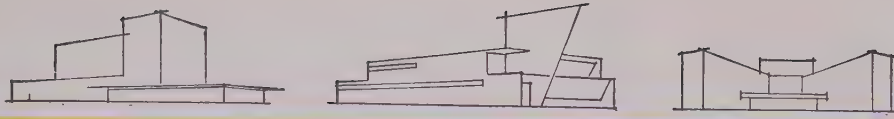
specify

DUNHAM

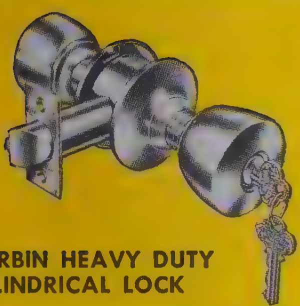
C. A. DUNHAM COMPANY LIMITED • TORONTO
Sales Offices from Coast to Coast

5401

VARI-VAC DIFFERENTIAL HEATING • RADIATION • UNIT HEATERS • PUMPS • STEAM SPECIALTIES

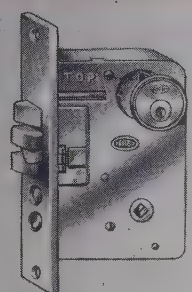


CAN SUPPLY EVERY LOCK YOU NEED



CORBIN HEAVY DUTY CYLINDRICAL LOCK

Offers all the features you expect on the finest cylindrical locks, plus three extra points of superiority: full ⅝" throw; extremely wide range of function; most flexible, master-keying system.



CORBIN MORTISE LOCKS

Made in a wide variety of functions and weights for every requirement. Can be master-keyed with other Corbin cylinder locks.



NEW! CORBIN *"Defender"* STANDARD DUTY CYLINDRICAL LOCKS

A major advancement in its class, the Corbin "Defender" has "Velvet-Glide" ball-bearing latch retractor action that is completely new to locks in the moderate price class. For any building where security and appearance must be combined with economy.

For more convenient service . . . for the time-saving, money-saving advantages of *one-source* hardware purchasing, *it pays to call your Corbin representative* who can offer you a complete selection of locks for every purpose — in every price range.

In addition, Corbin offers a complete line of highest quality Builders' Hardware . . . a line that through honest value and honest service has become *the world's most widely used Builders' Hardware.*

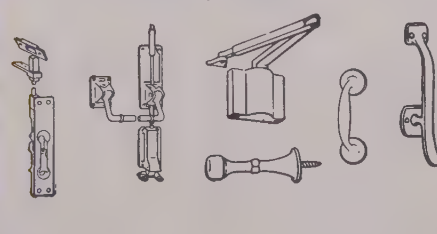


CORBIN UNIT LOCK

In every respect—installation, operation, and maintenance—the Corbin Unit Lock is your *wisest possible choice* for heavy duty service. Despite its compact appearance, this lock actually has more muscle than any other heavy duty lock on the market today. Internal parts are bigger, stronger. Operation is supremely smooth and quiet; and it can be installed *faster* and *easier* than any other type of lock. Take a long, searching look at the Corbin Unit Lock come next specification time. You'll be glad you did.

CORBIN — The World's most widely used BUILDERS' HARDWARE

CORBIN LOCK COMPANY OF CANADA LIMITED
Belleville, Ontario





FACTORY OFFICE PARTITION INSTALLATION—SINGLE OR DOUBLE PANEL TYPE

Sankey-Sheldon

MOVABLE

Steel Office Partitions
Glazed Factory Partitions
Weldmesh — or Expanded Metal
Factory or Stockroom Steel Partitions

ADJUSTABLE STEEL SHELVING AND BINS
STEEL LIBRARY SHELVING INSTALLATIONS
STEEL TOILET PARTITIONS
STEEL CLOTHES LOCKERS
STEEL FURNITURE

JOSEPH SANKEY AND SONS CANADA LIMITED

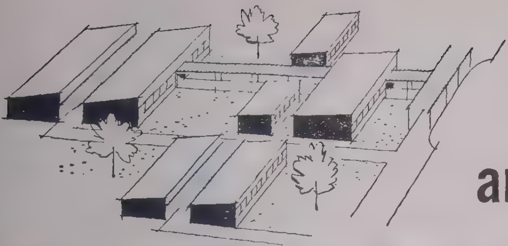
SMITHS FALLS, ONTARIO

418 ST. SULPICE ST.
MONTREAL

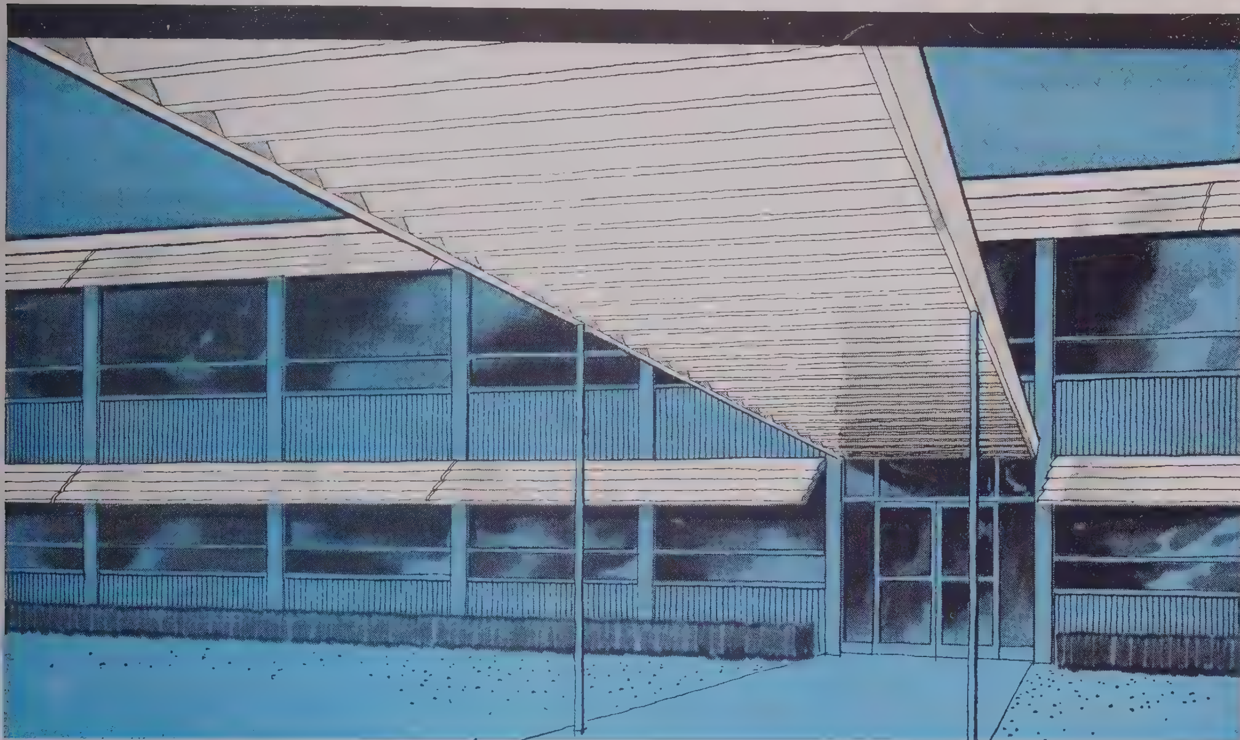
36 FRONT ST. WEST
TORONTO, ONTARIO

96 HADDON ST. NORTH
HAMILTON, ONTARIO

127-34 A STREET, N.W.
CALGARY, ALBERTA

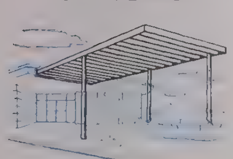


NOW—low-cost walk, window and entrance weather protection



KAWNEER all-aluminum prefabricated

CANOPY



entrance protection



walk protection

K-LOUVER



window protection



overhang addition

Kawneer
Kawneer Canada Ltd.
TORONTO, ONTARIO
ARCHITECTURAL PRODUCTS DIVISION

School design can be simplified with Kawneer's Sun-Control and weather protection products. You have great flexibility with the prefabricated sections enabling you to cover almost every glass opening and passageway to design specifications. The advantages far exceed the relatively low cost. Both products are made of heavy-gauge alumilited aluminum which means long, maintenance-free life. The reflective surface assures cool areas. The unique shapes such as the "W" of the canopy sections provide and encourage ventilation, yet protect from rain, and snow. The quick and easy erection means a faster completion date and fewer labor hours. Fill out the coupon below to learn more about Kawneer Sun-Control and Weather Protection products, and how they can be adapted to your school plans.

Kawneer Canada, Ltd.,
Don Mills Road, Toronto, Ontario, Canada
Gentlemen:

_____ Please send me further information on the Canopy and K-Louver.

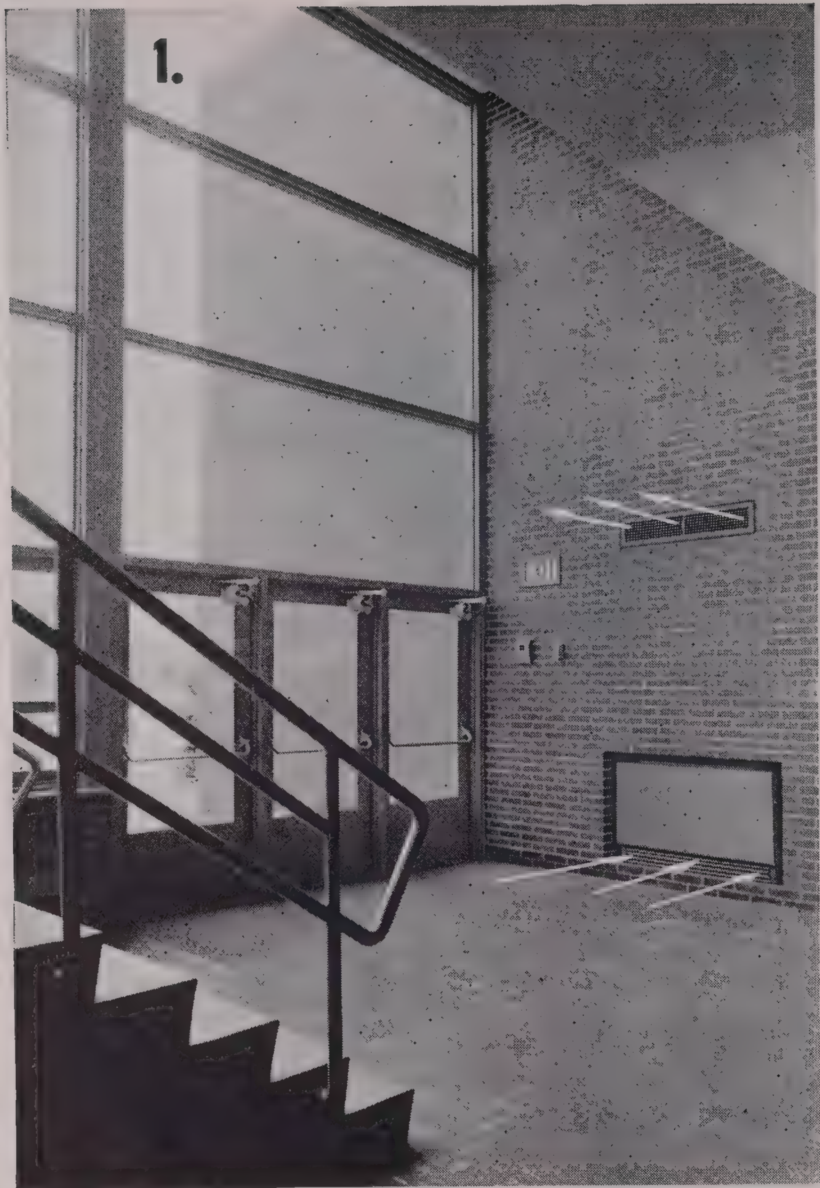
_____ Have your representative contact me.

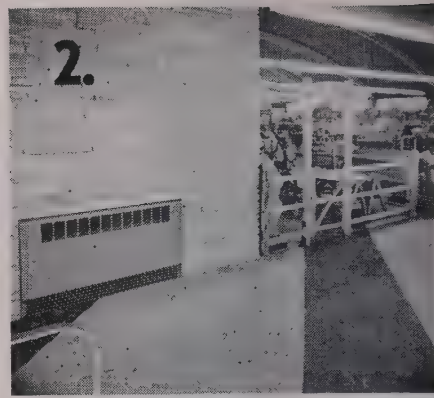
Name_____________________

School or Firm_____________________

Street_____________________

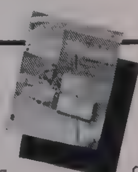
City_____________ Zone_____ State_____











for SPACE FLEXIBILITY



With handsome Modernfold Doors as space dividers, this modern Hotel Dining Room can be expanded or contracted as required.

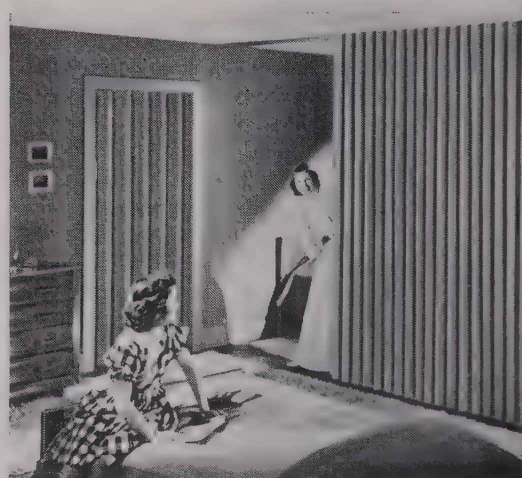
specify modernfold

As space savers and effective room dividers, Modernfold Doors have proved their practical value in many a modern installation . . . in institutions, commercial establishments and homes.

They save the space that old-fashioned swinging doors waste. They provide the sturdy and attractive "movable walls" that operate smoothly at a touch to give instant privacy or spaciousness as desired.

Their features include patented steel hinge plates at top and bottom of their sturdy frame-work. With *balanced pantographic action* they open and close smoothly and quietly. Folds are always evenly spaced, perfectly aligned. Their durable and washable vinyl-coated fabric is available in ten attractive colors.

Write us for full information on these and other features that make Modernfold today's top-quality folding doors.



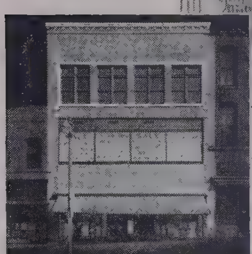
One room becomes two . . . two becomes one . . . in seconds . . . with Modernfold!

NEW CASTLE PRODUCTS (CANADA) LTD.

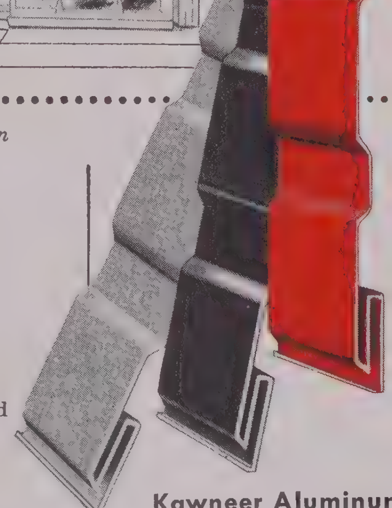
modernfold DOORS

1315 Greene Ave., Montreal 6 — GL. 2394





Before and after Kawneer Modernization



Everlasting shopper appeal with built-in COLOR

Drab store fronts today do not pay! Customers are attracted by *colorful* Kawneer Zourite (porcelain-enameled or alumilited aluminum). It is a facing material that resists chipping, cracking and fading, providing years and years of shopper appeal. Use it as a sign backing, and as a covering for columns, pilasters, bulkheads, soffits and pylons. Plan now to remodel store fronts with practically no interference to normal operations using Kawneer Zourite, doors, store-front metal and sun-control products. See your Kawneer dealer or write for additional information.

Kawneer Aluminum Zourite Facing in ten attractive colors

- Velvet Black
- Alumilite
- Alumilite Gray
- Academy Blue
- Marine Blue
- Harvest Brown
- Spring Green
- Sunset Red
- Winter White
- Flame Orange

Kawneer
Kawneer Canada Ltd.
TORONTO, ONTARIO
ARCHITECTURAL PRODUCTS DIVISION



ALLSPAN

s being used at . . .

ridge Administration Building Halifax, N.S.

ent Building Regina, Sask.

ount Royal Post Office Mount Royal, P.Q.

andish Hall Hotel Hull, P.Q.

nglo Canada Insurance Co. Building Toronto, Ont.

ommonwealth Building Ottawa, Ont.

edical Centre Ottawa, Ont.

esnoyers Building St. Hyacinthe, P.Q.

impson-Sears Ltd. Peterborough, Ont.

Post Office Colborne, Ont.

nnacis Island Development Vancouver, B.C.

Office Building, Crites and Riddell Montreal, P.Q.

Grandview Health & Welfare Centre Vancouver, B.C.

Perley Homes Ottawa, Ont.

Calvery Temple Winnipeg, Man.

Office Specialty Mfg. Co. Ltd. Edmonton, Alta.

Office Building, Bathurst & Eglinton Toronto, Ont.

Office Building, 20 Eglinton Ave. East, Toronto, Ont.

Manitoba Medical College Winnipeg, Man.

Canadian National Institute for the Blind Toronto, Ont.

Toronto-Dominion Bank Port Hope, Ont.

St. Mary's School Kitchener, Ont.

Grandstand-Woodbine Race Track Toronto, Ont.

Canadian Welfare Building Ottawa, Ont.

Peterborough Memorial Centre Peterborough, Ont.

Health & Welfare Centre Vancouver, B.C.

Ontario Teachers' College Toronto, Ontario

Office Building, 146 Bloor Street West Toronto, Ont.

HEALTH AND WELFARE CENTRE, VANCOUVER



ANGLO-CANADA, TORONTO



WILLIAMS & WILLIAMS WALLSPAN

is going up all over Canada!

✻ WALLSPAN, in just two years, has forged to the forefront in popularity with leading architects and building contractors all across Canada. Two of the major reasons, we believe, are the incredible speed with which WALLSPAN can be erected . . . and, equally important . . . the bonus of extra rentable floorspace it provides. Get all the facts . . . write for the WALLSPAN catalogue.



COMMONWEALTH BUILDING, OTTAWA



BLOOR ST. OFFICE BLDG. TORONTO

WILLIAMS & WILLIAMS

(EASTERN) LIMITED TRENTON, ONTARIO, P.O. BOX 411 Phone TRENTON 6511

(WESTERN) LIMITED 950 S.W. MARINE DRIVE VANCOUVER 14, B.C.

SALES OFFICES: EDMONTON · CALGARY · WINNIPEG · LONDON · TORONTO · MONTREAL · HALIFA

UP FOR KEEPS





TRUSCON

ALUMINUM DOUBLE HUNG WINDOWS

With styles and sizes for all conceivable construction needs, TRUSCON Aluminum Windows are leaders in their field. They are backed by years of pioneering new methods — and that's why they are dependable in every way. And their wide range assures architects and builders that their most exacting requirements can be met precisely and with standard material that always saves time and money in installation.

Wherever you plan to build in Canada you will find TRUSCON service not far away — ready to solve your problems from a vast store of window knowledge. Any of our offices will gladly furnish information and quotations.

TRUSCON Double Hung Aluminum Windows are an important part of the architectural design and fine appearance of the new Bell Telephone O'Connor Street building, Ottawa, at top, and the Macdonald Hotel, Edmonton, right.

Other Dependable Truscon Products

STEEL ROOFDECK
ALUMINUM ROOFDECK
INDUSTRIAL STEEL DOORS
STEEL JOISTS
PRESSED STEEL DOOR FRAMES
REINFORCING STEEL
WELDED WIRE MESH
AIRPLANE HANGAR DOORS
STEEL FLORETYLE METAL LATH
CORNER BEAD CONCRETE INSERTS

TRUSCON STEEL COMPANY of CANADA LIMITED

WALKERVILLE • TORONTO • MONTREAL • HALIFAX • WINNIPEG • REGINA • CALGARY

INGLIS FULLY CONDITIONED AIR SYSTEM—FOR A FINE BUILDING . . .



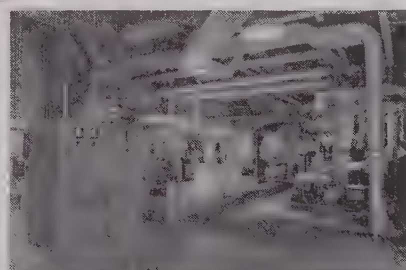
A view of the new office . . . 60 feet wide and 300 feet long, a pleasing example of modern architecture. Engineering by owner's engineering staff, builders J. S. Hewson Limited, Westmount, P. Q.

This fine Accounting Department office building of the Canadian Pacific Railroad at Montreal (an extension to Windsor station) is a fine example of modern architecture. It is one of the first buildings in Canada to be equipped with the advanced engineering features of the INGLIS-WORTHINGTON peripheral fan-coil units in combination with central treatment of fresh air, in a single complete air-conditioning system, at low cost.

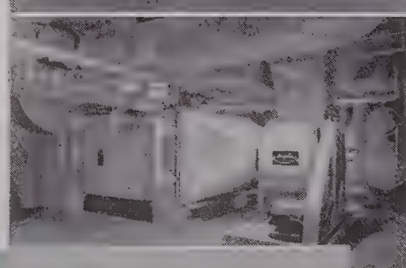
This complete system
DEHUMIDIFIES AND COOLS IN SUMMER
HUMIDIFIES AND HEATS IN WINTER
and circulates filtered air all year round.

Low initial cost and economical operation make this system all that is desirable in first class air conditioning.

May we send you details on how the INGLIS service can provide the answer to your air-conditioning problems?



The main engine room showing the WORTHINGTON 300 ton centrifugal system, cooling water to 45°F.



A view of the air-treatment chamber showing the filter section and 30 HP fan which delivers treated air to room units.

JOHN INGLIS CO. LIMITED

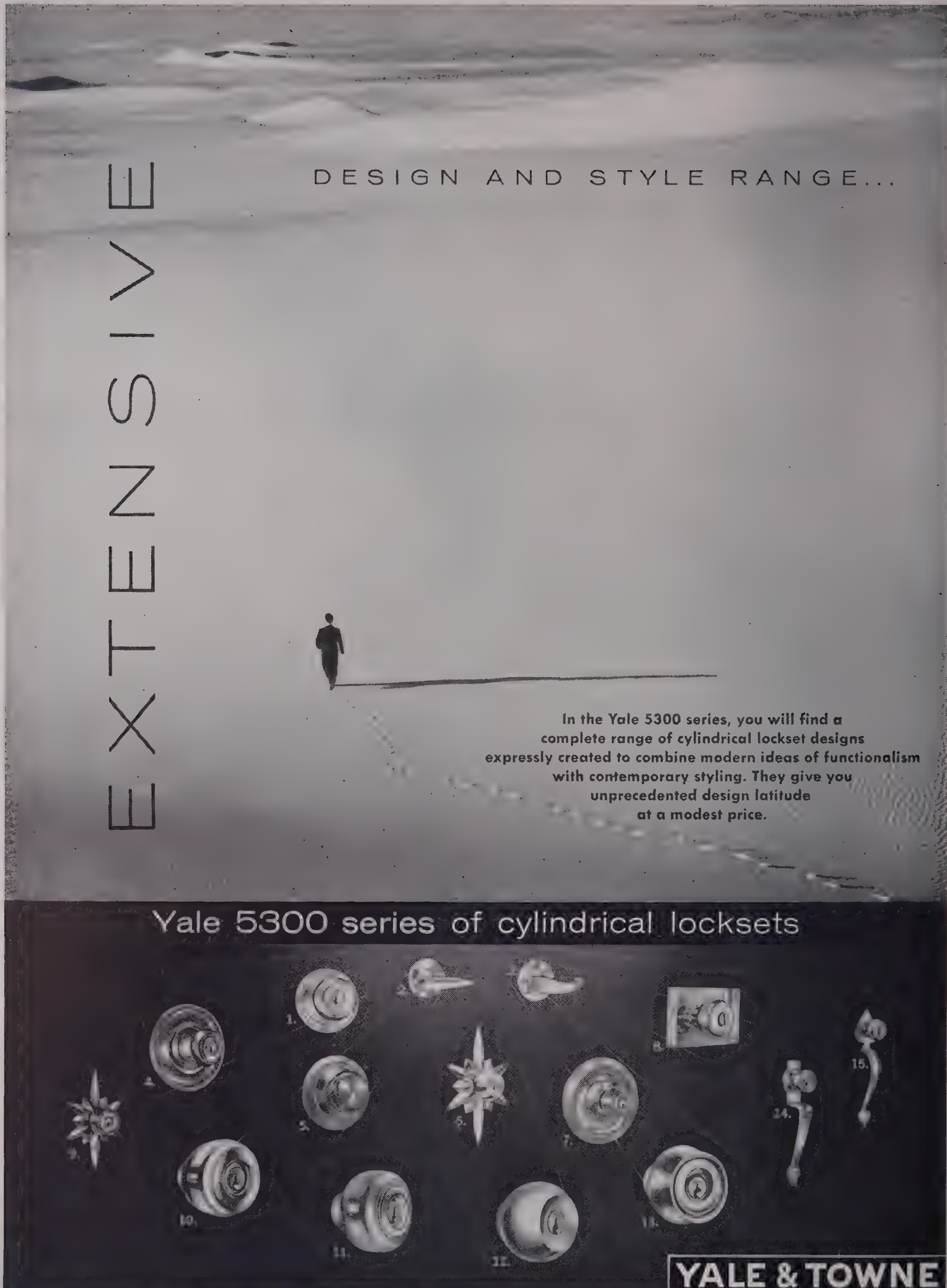
Refrigeration and Air Conditioning Division

14 STRACHAN AVENUE, TORONTO, CANADA

Inglis WORTHINGTON

3R55

District Offices: HALIFAX, MONTREAL, OTTAWA, WINNIPEG, CALGARY, EDMONTON, VANCOUVER



EXTENSIVE
DESIGN AND STYLE RANGE...
In the Yale 5300 series, you will find a complete range of cylindrical lockset designs expressly created to combine modern ideas of functionalism with contemporary styling. They give you unprecedented design latitude at a modest price.
Yale 5300 series of cylindrical locksets
YALE & TOWNE

NOW IT'S HERE

a gas vent as finely engineered as the latest gas equipment for today's modern homes

RV METALBESTOS
ROUND GAS VENT

companion product to new WV Metalbestos oval vent. Now a complete venting line — correctly designed, thoroughly tested to provide a new standard in scientifically correct venting.

NEW EASE OF INSTALLATION

Rota-Lock Coupler joins pipe easily without forcing — locks permanently, yet is easy to unlock. Not a friction or snap lock — no cement or mastic, no screws needed.

NEW SAFETY

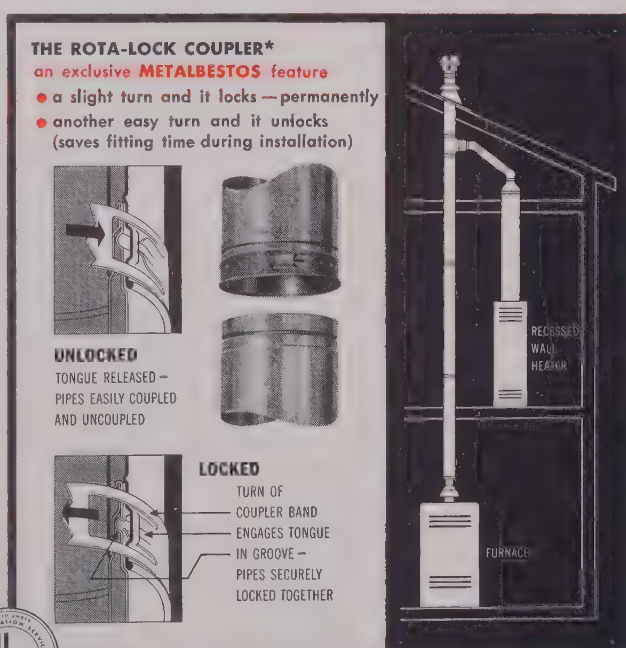
fire-resistant steel outer pipe; permanently tight joints; improved double-wall, air-insulated design.

NEW STRENGTH

rugged steel jacket protects inner pipe, resists damage in handling; won't crack, break or collapse.

NEW FREEDOM OF DESIGN

a complete venting system backed by engineering knowledge to solve any installation problem. Requires about 15% less space than any other gas vent. Full line of pipe and fittings, 3″ to 6″ diameter.

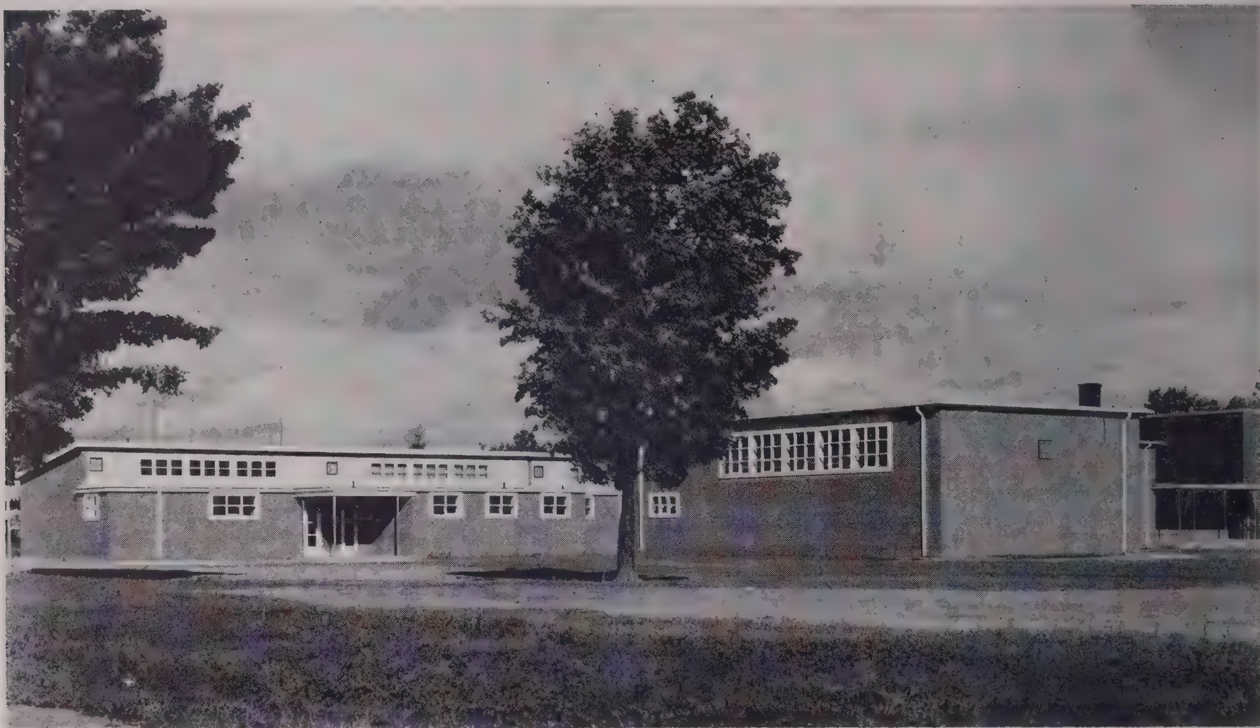


* Patent Pending

RV Metalbestos is listed by Underwriters' Laboratories as a Type B vent for venting approved gas appliances.. (Not for use with oil-burning appliances or gas-fired incinerators.)

METALBESTOS DIVISION
WILLIAM WALLACE COMPANY · BELMONT, CALIF.

Distributor stocks located in: Windsor, Ingersoll, Toronto, Hamilton, Montreal, Winnipeg, Regina, Saskatoon, Edmonton, Calgary, Vancouver.

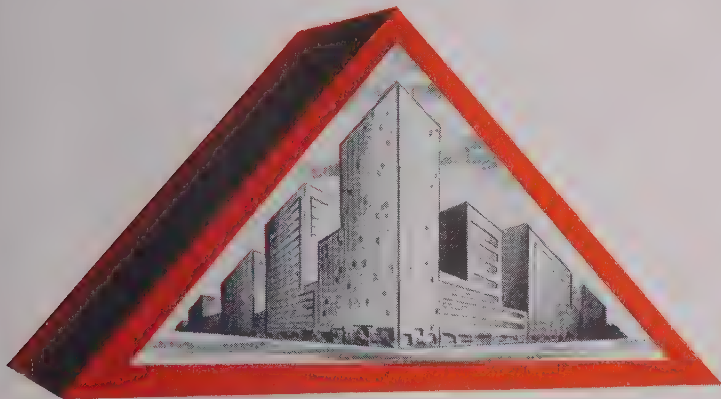


ADDITION TO WEST HILL PUBLIC SCHOOL, SCARBOROUGH, ONTARIO

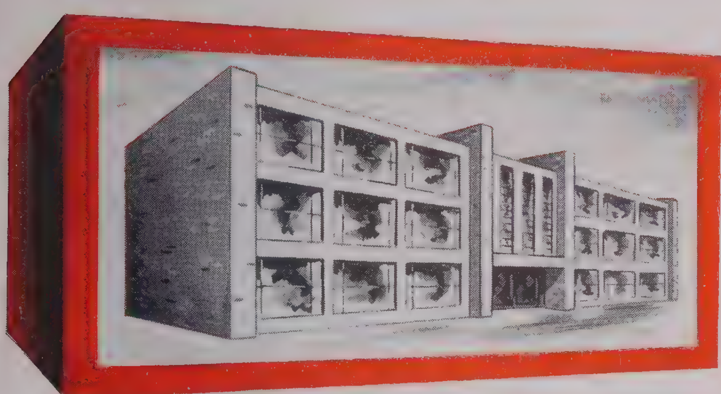
Architects, Murray Brown & Elton

ENGINEERED TO FIT THE EXACT NEEDS OF THE INDIVIDUAL BUILDING

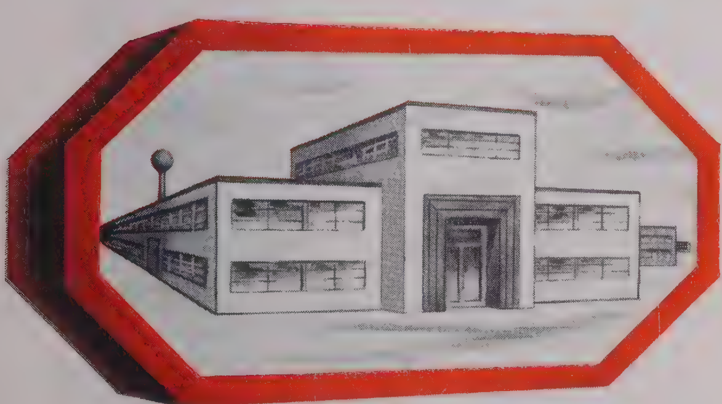
JOHNSON Automatic Temperature CONTROL



OFFICES, STORES, PUBLIC BUILDINGS



SCHOOLS, HOSPITALS, INSTITUTIONS



INDUSTRIAL BUILDINGS



Every building presents a different temperature control problem. So does its heating, cooling, ventilating or air conditioning system. That is why architects and engineers, seeking to insure the *finest* in control for their buildings, turn their temperature regulation problems over to Johnson.

The nationwide Johnson organization *originated* the idea that temperature control systems must be specially designed according to the requirements of the particular building and its heating, ventilating or air conditioning installation. *For over 70 years, Johnson has manufactured automatic temperature control apparatus and, beyond that, has planned and installed every one of its systems to fit the exact needs of the individual building.*

This undivided interest in and responsibility for the entire sequence of operations results in temperature control systems that are unsurpassed for efficiency, economy, comfort and convenience.

Any building—small or large, new or existing—can enjoy the benefits of Johnson Control. Why don't you take advantage of Johnson's unmatched experience on your next job and be sure of getting the finest in control? The recommendations of an engineer from a nearby Johnson branch are yours without obligation. JOHNSON TEMPERATURE REGULATING CO. OF CANADA, LTD. Direct Branch Offices in Principal Cities across Canada.

JOHNSON CONTROL

TEMPERATURE AIR CONDITIONING

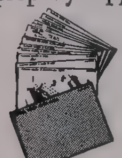
PLANNING • MANUFACTURING • INSTALLING • SINCE 1885



SPIRES: Copper solves the costly maintenance problem

One of the many applications where the long run economy of copper has proved itself is in the covering of spires. Whether it is repointing a spire of masonry construction or repainting one of wood exterior surface, the operation is a costly one. Copper sheets, properly applied, provide a lasting, weathertight covering that becomes an elegant landmark in the community—but of more importance is the freedom from expensive maintenance.

The copper-covered spire shown above is built in much the same way as a batten-seam roof. Details for edgings, etc., are simple, and copper covering is built into the wood construction of the ventilating dormers at the base. Several alternate types of battens or methods of joining at the corners are also shown. For small spires, 16 oz. copper of cornice temper does very well. For large spires, 20 oz. copper is preferred.

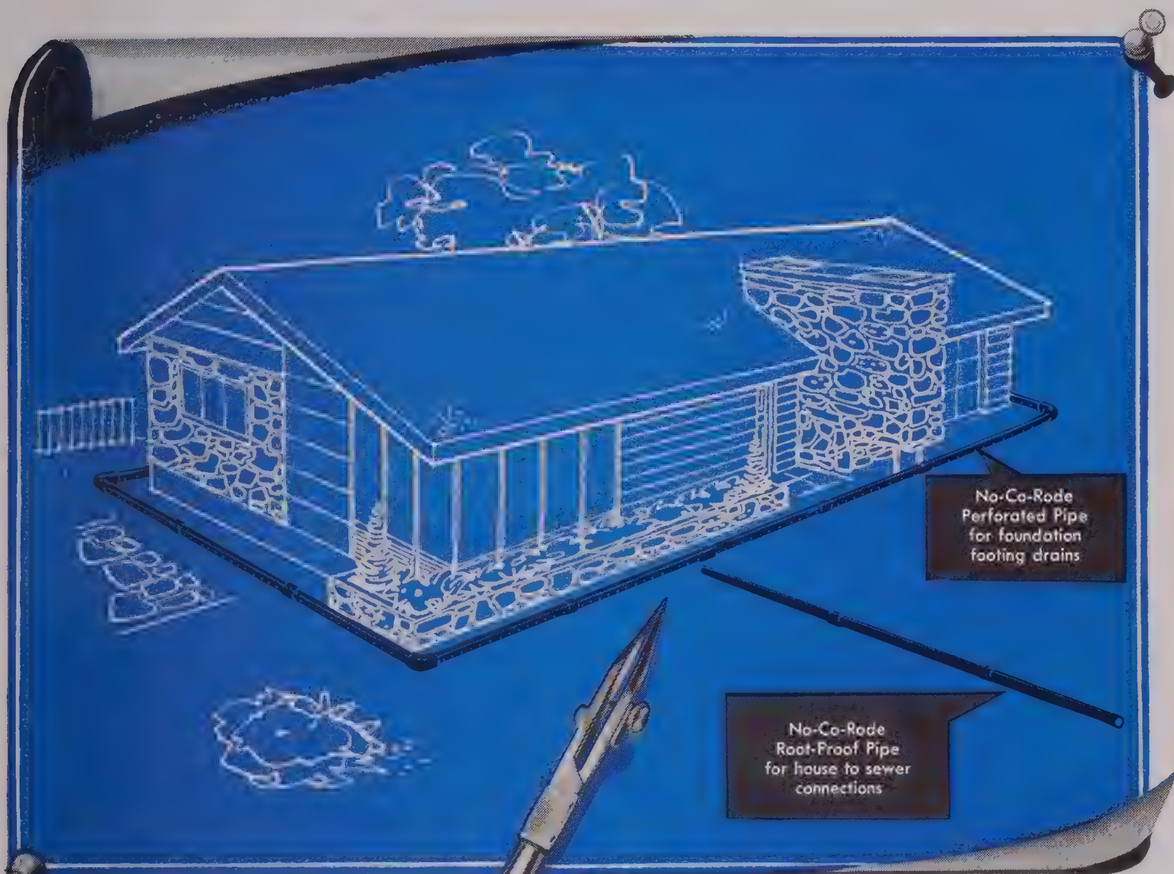


Do you have the FREE Anaconda file of drawings? Each drawing shows a new or improved way to apply sheet copper. Each is printed on a separate 8½ x 11 page, handy for quick-reference filing. This series may be obtained absolutely FREE by writing for Portfolio S to **Anaconda American Brass Limited, Main Office and Plant: New Toronto, Ontario —Montreal Office: 939 Dominion Square Building.**

ANACONDA

FIRST in Canada for Copper, Brass and Bronze

Designed for permanent, low-cost installation



with genuine No-Co-Rode Sewage and Drainage Pipe

- √ PERMANENT
- √ ROOT-PROOF
- √ EASY TO INSTALL
- √ ECONOMICAL

Distributed by:

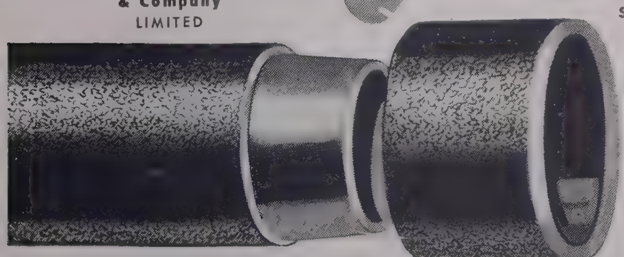
CRANE LIMITED

Alexander **MURRAY** & Company LIMITED

Long, lightweight lengths mean easier handling, fewer joints and a reduction in the time and cost of handling and installation. Specify No-Co-Rode Root-Proof Pipe for house to sewer or septic tank connections, storm drains and other underground non-pressure uses.

The tapered, self-sealing joints quickly tap into place to provide permanent, water-tight and root-proof connections—no extra materials or special tools needed. Extra Strong No-Co-Rode will not break, crack or shale in handling or in the ground—not affected by acids, alkalis, soil movements or surface shocks.

For permanent, trouble-free foundation footing drains, septic tank disposal beds, and other drainage installations specify No-Co-Rode Perforated Pipe.



Specify genuine

NO-CO-RODE

ROOT-PROOF & PERFORATED PIPE

For Detailed Information and Literature Contact the Distributor Nearest You or Write Directly to NO-CO-RODE Company Limited, Cornwall, Ontario.



For heavy duty floors use Laykold® ASPHALT SPECIALTIES

FLOOR MASTIC BINDER

Goes on faster...Stands up better

For fast, efficient movement of goods you need loading docks and warehouse floors that are stable and smooth and wear-resistant—the kind of surfaces you get with efficient Laykold Floor Mastics.

Screeded cold, Laykold Floor Mastics are equally suitable for use over concrete or wood floors in factories, warehouses, or side-walk areas. Economical and light-weight, Laykold is excellent for use on loft floors, too.

Typical recent large jobs are Naval Supply Depot, Mechanicsburg, Pa.; Naval Ammunition Depot, Hawthorne, Nevada; and Alameda Naval Air Station, Alameda, California.

Laykold is a registered trade mark of Canadian Bitumuls Co. Ltd.

CANADIAN BITUMULS COMPANY LIMITED

MONTREAL, Que. 11451 Sherbrooke St. East

TORONTO, ONT. 43 Industrial St.

REGINA, SASK. Arcola St.

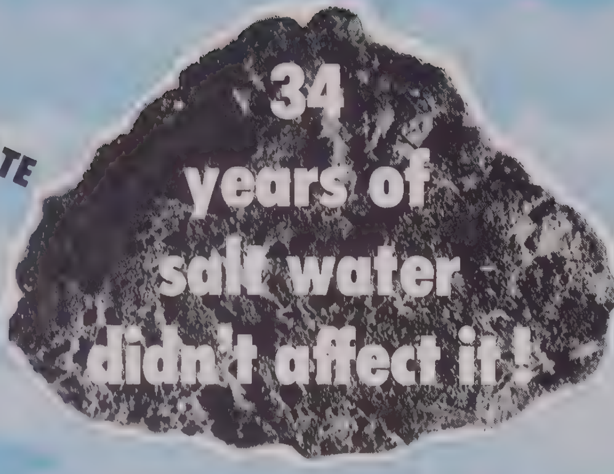
SAINT JOHN, N.B. Coastal Asphalt Products Ltd.

VANCOUVER, B.C. Standard Oil of B.C. Limited

OTHER LAYKOLD FLOORING PRODUCTS

Tile Set • Wood Block Cement • Hydropel (for concrete)

"HAYDITE"*
THE LIGHTWEIGHT AGGREGATE SO DURABLE . . .





Near Galveston, Texas rests the hull of the "HAYDITE" concrete ship "Selma" launched in 1919 and beached some years later. For 35 years the "HAYDITE" concrete in the hull had endured thousands of cycles of wetting and drying. In 1953, physical examination showed that "... the concrete was in excellent condition and the reinforcing steel showed no deterioration whatsoever even though in most places it had only ⅝ inch cover".

"HAYDITE" aggregate is a pure iron-bearing high silica-alumina lorain shale, produced in rotary kilns at temperatures exceeding 2000° Fahrenheit. This intense heat burns out all foreign matter, and causes an explosive expansion of the shale creating myriads of microscopic, totally-enclosed non-interconnecting air bubbles, each in its own vitreous shell. This is "HAYDITE"—a remarkably durable lightweight aggregate (concrete made with "HAYDITE" aggregate weighs 33% less than sand and gravel concrete) that is chemically inert, has amazing strength, and is highly resistant to both fire and humidity.



Let us tell you about "HAYDITE" for poured-in-place structural reinforced concrete; for precast roof and floor slabs; for roof and floor fill; for refractory concrete; for guniting applications, and for building blocks.

**Registered Trade Mark*

THE Cooksville Company LIMITED

general sales offices: 1055 Yonge Street, Toronto
montreal: Aerocrete Construction Co. Ltd., 640 Cathcart St., Montreal



Build SALABILITY and LIVABILITY into every home with

IRON FIREMAN® SelecTemp ZONE HEATING

Thousands upon thousands of prospective home buyers are now learning about Iron Fireman SelecTemp heating when they see it installed in new, modern homes throughout the country. SelecTemp heating both surprises and delights them. Every room (even the bathroom) has its own individual thermostat. Every member of the family can enjoy just the degree of warmth he prefers. Room temperatures are automatically adjusted to compensate for fireplace heat, or warmth from the sun, without affecting other rooms. Heating is by gently circulated, filtered warm air. Heat is distributed throughout the house with steam, which comes to each room through a copper tube no larger than your little finger. This same steam runs a turbine-driven circulating fan. No electricity or wiring is needed for fans or thermostats. It's all so simple and practical; many say it's the greatest advance in heating since the introduction of the thermostat. It's no wonder that SelecTemp heated houses attract attention—and buyers.





Economical for old or new construction

With all its advantages, SelecTemp heating is available at a cost that makes it practical for all types of construction, from the smallest residence to the largest commercial building, old or new. Read "SelecTemp Highlights" at left. Then send coupon below for specifications and full information.

SELECTEMP HIGHLIGHTS

THERMOSTAT IN EVERY ROOM. Temperatures can be varied in every room to fit the "activity plan" and personal preference of the occupants.

MODULATED HEAT. Air circulation is continuous. Both temperature and volume of air are automatically modulated, as required to offset heat loss from room.

FILTERED, CIRCULATED AIR. Individual room air circulation prevents transmission of odors or bacteria from other rooms. Air is cleaned by a spun glass filter in each room unit. Filtered outside air can be introduced if desired.

BOILER LOCATION. Boiler can be placed in any desired location, with proper distribution of heat to every room. Year-around domestic hot water coils available. Fuels: Gas, oil or coal.

LOW POWER COST. No electricity required to operate circulating fans. Non-electric thermostats.

LOW INITIAL COST. Easily installed in either new or old construction. Small soft copper tubing (½ inch I.D.) carries steam to individual room heater units. Return lines are [illegible] inch. Substantial savings in installation costs.

LOW FUEL COST. Temperature easily reduced in unused rooms. Overheating is eliminated.

AUTOMATICALLY BALANCED. No special adjustments of dampers, valves or orifices required to balance heating system. Each unit continuously regulates heat needed for each room. Automatically compensates for external heat sources such as fireplace or solar heat, without affecting temperatures of other rooms.

Iron Fireman SelecTemp®

MODULATING ZONE HEATING



IRON FIREMAN MFG. CO. OF CANADA, LTD.
80 Ward Street, Dept. 65.
Toronto, Ontario.

Send literature on Iron Fireman SelecTemp heating.

Name ____________________

Address ____________________

City ____________ Province ____________

SCHLAGE Design Originality

DRESSES UP DOORWAYS

The distinctive square Imperial escutcheon is more than just a new design. Combined with its smaller companion, the Regent, it introduces an original lock design concept in door decor — matching motifs you can establish throughout your homes. And it gives you — together with Schlage's round escutcheons — an even wider range of novel entranceway effects . . . lets you feature Schlage quality and beauty at a cost well within the limits of a modest building budget.



IMPERIAL

ORIGINAL . . .

When placed on the diagonal, the Imperial presents a dramatically different diamond effect . . . welcome variety without added expense for the volume builder . . . another example of tasteful originality in door decor made possible by these advanced escutcheon designs.



REGENT

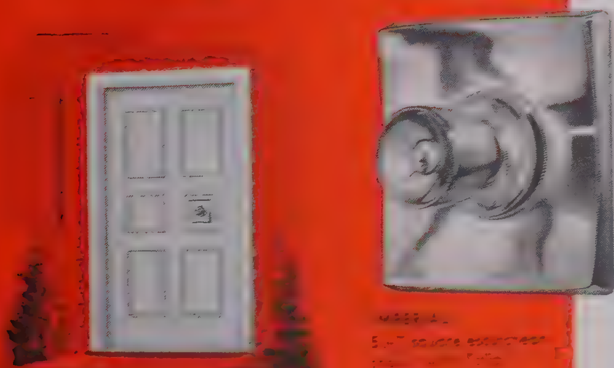
VERSATILE . . .

The smart distinction of the Imperial can now be repeated on interior doors with the smaller Regent . . . adding a new note of beauty to interior styling . . . protecting the door surface from unsightly scratches.

DISTINCTIVE . . .

In a square setting, the beautiful new Imperial escutcheon forms a striking concave background for Schlage locks . . . adds just the right touch of distinction to entranceways. And, with Schlage's original long backset feature, greater freedom of lock placement creates even more possibilities for original doorway styling.

SCHLAGE ESCUTCHEONS . . . for the favorable first impression that helps sell discriminating home buyers.



IMPERIAL

Send for "NEW DESIGNS" FOLDER No. 626-R-6

This new folder suggests many refreshing ways to feature door decor . . . incorporating Schlage's five beautiful new lock and escutcheon designs. Fully illustrated, with complete specifications.



TRADE MARK REGISTERED

SCHLAGE

SCHLAGE LOCK COMPANY OF CANADA LTD. VANCOUVER, B.C.

The Imperial and Regent escutcheons are available in wrought brass, bronze or aluminum, in all standard finishes . . . can be used with a wide variety of Schlage lock designs.

Want control for Water Heaters or Heat Exchangers?

call POWERS



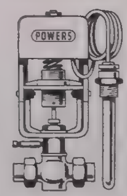
FLOWRITE
One of Powers Premium Quality Diaphragm Control Valves. They're simple, sturdy and dependable.

Over 60 Years of Temperature and Humidity Control

(c28a)

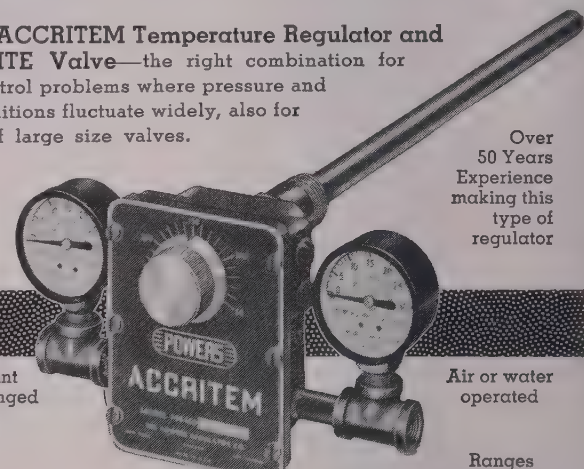
VALVES: Available in a variety of body types and inner valves.

You Will Insure Better Temperature Control IF—



you use the right type regulator and proper size control valve. Whether a simple self-operating regulator shown at left is required or the air operated controls featured here . . . you can get both types and others from Powers. For further information call or write our nearest office.

Powers ACCRITEM Temperature Regulator and FLOWRITE Valve—the right combination for many control problems where pressure and load conditions fluctuate widely, also for control of large size valves.

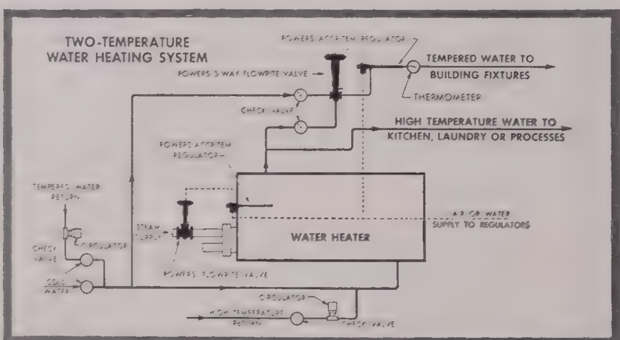


Over 50 Years Experience making this type of regulator

Control Point easily changed

Air or water operated

Ranges 50 to 250°F—150 to 350°F

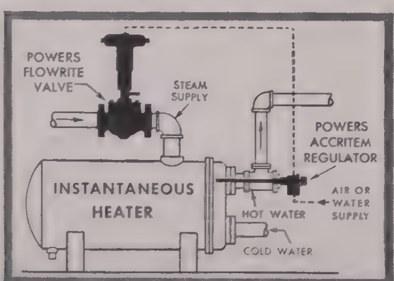


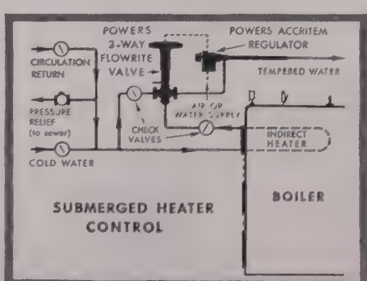
ACCRITEM TEMPERATURE REGULATOR

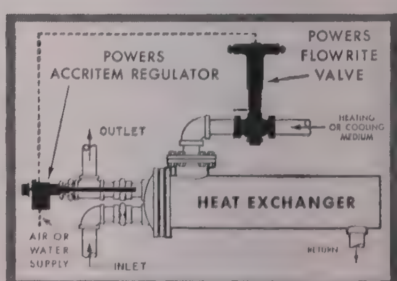
Gives Close Control and Years of Dependable Service.

- Has Adjustable Throttling Range and Calibrated Dial.
- Simple, Durable Construction assures years of trouble-free service.
- Easy to Install • Direct or Reverse Acting, reversible on the job.
- Small Size: Regulator head is 2⅞" wide, 3⅝" high, bulb is 12" long with ½" IPS Connection.

Fully Described in Bulletin 316. Write for a copy.







THE POWERS REGULATOR CO. OF CANADA LTD. | 15 Torbarrie Road • Downsview, Ontario
Offices in chief cities • See your phone book





IOCO

first refinery of its type to be

insulated completely with FIBERGLAS*

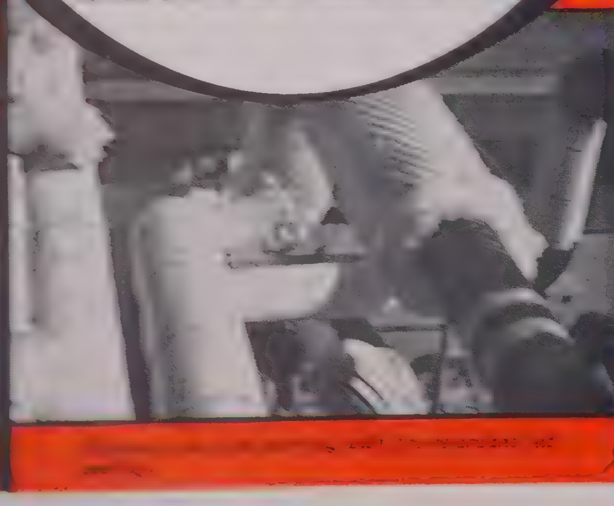
Every temperature-controlled stage of refining at Imperial Oil's newest refinery at Ioco, B.C., is protected by Fiberglas Insulations. Eight miles of pipe covering protect pipes of many sizes. 40,000 board feet of PF Insulation helps maintain pre-determined temperatures in various vessels and large lines. And approximately 100,000 board feet of TWF metal mesh blanket and blanket type pipe covering has been used on other sections of the complex system. From the cracking tower to the smallest pipe ... heat loss or gain is minimized with Fiberglas Insulations.

*T.M. Reg'd.

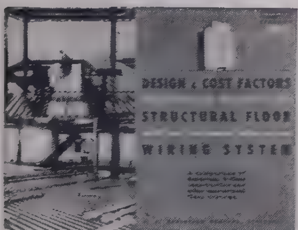
FIBERGLAS

FIBERGLAS CANADA LIMITED
GENERAL OFFICES
50 ST. CLAIR AVENUE WEST • TORONTO • ONT.
SALES OFFICES
MONTREAL OTTAWA TORONTO WINNIPEG VANCOUVER





Write for these free data books from The Robertson technical library



1.
Design and Cost Factors

This book compares Q-Floor with other types. Based upon a typical multi-story building, the study is replete with charts and cost analyses of all structural components.



2.
How to Fireproof Q-Floor and Structural Steel

This is a description of fireproofing methods when Q-Floor is used with structural steel framing. It contains detailed drawings, typical code requirements and fire resistive ratings.



3.
An Analysis of Industrial Roof Construction

All the better-known roof types (flat, monitor, bow-string, double-pitch, high-low bay, saw tooth) are compared on the basis of weight of structural steel, volume, roofing, sash area, flashing, ventilation and daylighting.



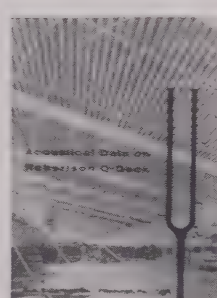
4.
Cantilevered Roofs and Canopies

This is information on the use of multi-span Q-Deck on modern buildings that call for covered walkways or overhanging roofs for weather protection. Loading conditions and structural details shown.



5.
Concrete Fill on Q-Floor

This booklet gives recommended practices for concrete fill over Q-Floor. You'll find specifications for formulation, placement and curing, plus treatises on the nature and reactions of concrete.



6.
Acoustical Data on Q-Deck

Though the fluted undersurface of Q-Deck provides some acoustical value, demand for more has led Robertson engineers to devise a new low-cost treatment. Test data and details are included.

Robertson Products

for modern buildings

Robertson-Irwin Limited
411 Parkdale Ave. N., Hamilton, Ont.
MONTREAL, TORONTO, HAMILTON, WINNIPEG, EDMONTON, VANCOUVER
IN UNITED STATES:
H. H. Robertson Company, Pittsburgh, Pennsylvania
IN ENGLAND:
Robertson Thain Limited, Ellesmere Port, Cheshire

55-100

Please send the free data book(s) I have circled below.

1 2 3 4 5 6

NAME ____________________

FIRM ____________________

ADDRESS ____________________

This is the Otis Electronic Zone of Detection (Illustrated in phantom) This zone extends in front of the leading edges of both hoistway and elevator car doors from floor to shoulder height. When a passenger enters this zone of detection the electrical effect of the passenger's body energizes a series of electronic tubes. The tubes in turn permit the passage of current to operate the relays that control door operation. The result? The doors politely and obediently reverse before they can touch the passenger. This zone travels with the car and provides double-door protection at each floor.



Traffic speeding doors that can't be matched

FOR HIGH SPEED OPERATORLESS ELEVATORS

It doesn't make good sense to combine high speed elevators with slow closing hoistway and elevator car doors.

Seconds saved at each elevator stop can add up to hours of faster service in a busy building.

That's why Otis Electronic Elevator Doors are designed to encourage people to step livelier—and speed traffic.

Otis Electronic Elevator Doors—*with the electronic zone of detection*—need stay open at floor calls only long enough to permit a single passenger to leave or enter the car. Then they start closing. This alerts other passengers to step lively.

However, as long as *the electronic zone of detection* (as illustrated in phantom) senses the presence of other passengers in the doorway, both hoistway and elevator car doors keep reversing politely and obediently without touching the passengers. Then they start closing again. And the instant the last passenger has entered or left the car the doors are closed—*and the car speeds away!*

This unmatched traffic speeding—*obtainable only with completely automatic* AUTOTRONIC *elevators*—is available at only slightly extra cost above such standard equipment as rubber-edged contact doors and electric rays.

More than 250 new and modernized office buildings, hotels, hospitals, banks and department stores have given AUTOTRONIC elevators an overwhelming vote of confidence —*by buying Autotronic!*

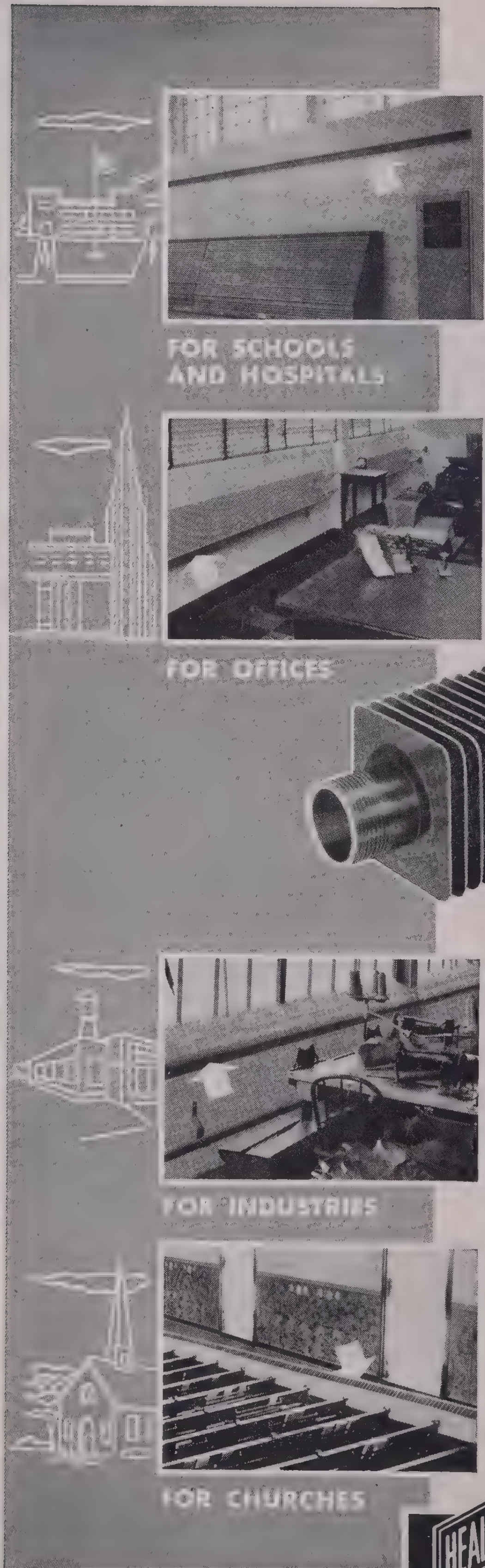
Your local Otis office has the details.

Otis Elevator Company Limited
Head Office and Works: Hamilton, Ontario

COMPLETELY AUTOMATIC

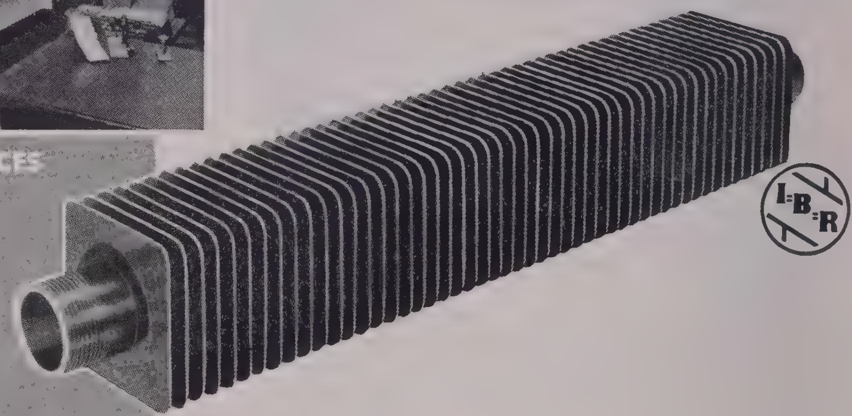
AUTOTRONIC®

ELEVATORS



install "HEAL" LINOVECTOR

where heat is needed



Light in weight, "Heal" Linovector finned tube radiation can be installed at *any* height on walls, or on ceilings if necessary—right where you *need* the heat. When heating installations have to be out of the way, the simplicity of installation and lightness of weight makes "Heal" the ideal product. "Heal" Linovector can also be installed one, two or three high, depending upon the amount of heat required. Attractive enclosures are available for various applications. No matter what your heating problem, "Heal" finned tube radiation for Hot Water or Steam is the answer.

Catalogue No. 625A gives complete details, including I-B-R ratings. Send for it now.

Branches at Quebec and Toronto
Representatives at: St. John's, Nfld., Saint John, N.B., Winnipeg, Man., Edmonton, Alta., Vancouver, B.C.

HEAL HEAT CONVECTION HEATING

VAPOR CAR HEATING CO. OF CANADA LIMITED
65 Dalhousie St. Montreal.

KLEEN TUBE



Now! WHITE Industrial SEATS

THAT WON'T DISCOLOR — THAT WON'T BREAK

Olsonite Shock-Proof white seats won't discolor — keep that sanitary white appearance, under normal use, for the life of the building.



Shock-Proof Olsonite seats withstand abuse without damage — are five times stronger than ordinary one-material seats.

SHOCK-PROOF SOLID Olsonite SEATS

A truly white seat looks more sanitary, is more attractive, brightens and lightens the room. And now—you can specify a white seat that *stays* white for a lifetime of normal use.

The new Olsonite White Shock-Proof Seats are ideal for all industrial and public toilet installations. Independent research laboratory tests have proven no visible discoloration, even after years of service. And these tests have also proven an ability to withstand shock five times greater than ordinary solid seats. Even deliberate abuse in public toilets and industrial installations won't crack, chip, or break the new Olsonite Shock-Proof Seats—and they won't absorb water.

Add to these new advantages the Olsonite features of concealed hinge, no exposed metal to rust or corrode; one material, sanitary white all-the-way-through; and one piece construction, no applied finish to crack or peel. Then—specify the seat that *stays white*—that can "take it" without damage even in public toilets—Solid Olsonite SHOCK-PROOF Seats.

*More Olsonite seats are sold in Canada than all other makes combined.**

*Source: Dominion Bureau of Statistics.

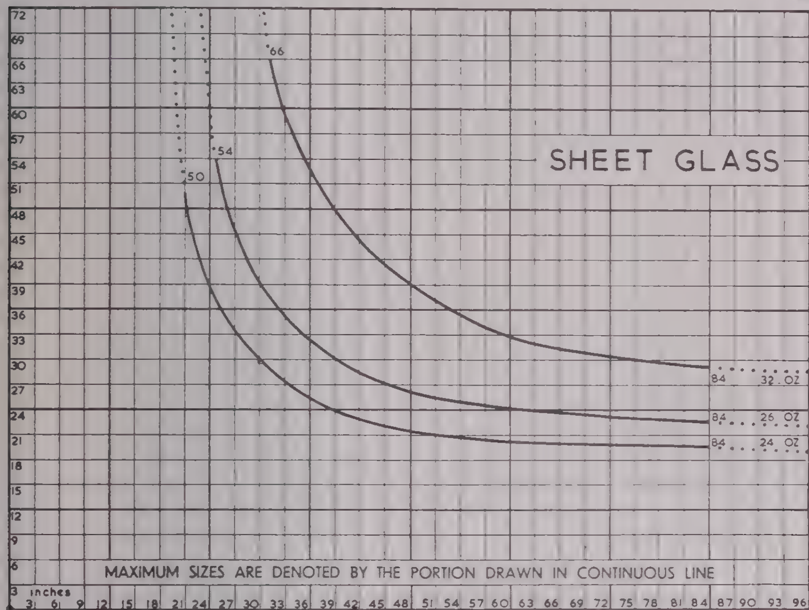
Olsonite's complete catalog is available on request. Please write on your letterhead to:

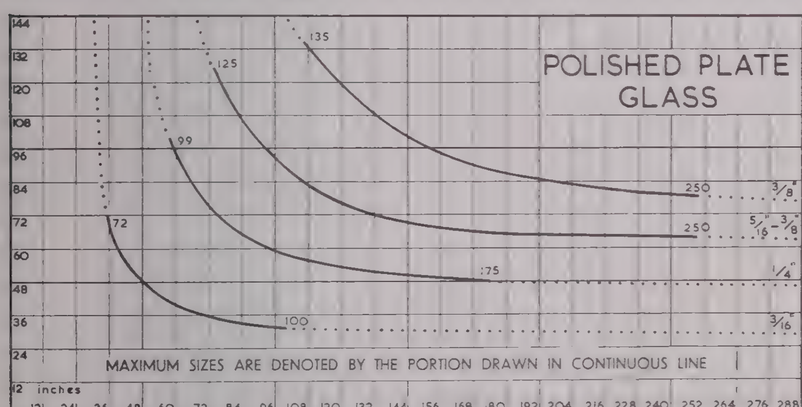
CANADIAN BATTERY & BONALITE CO., LTD.
(PLASTICS DIVISION) WINDSOR, ONTARIO

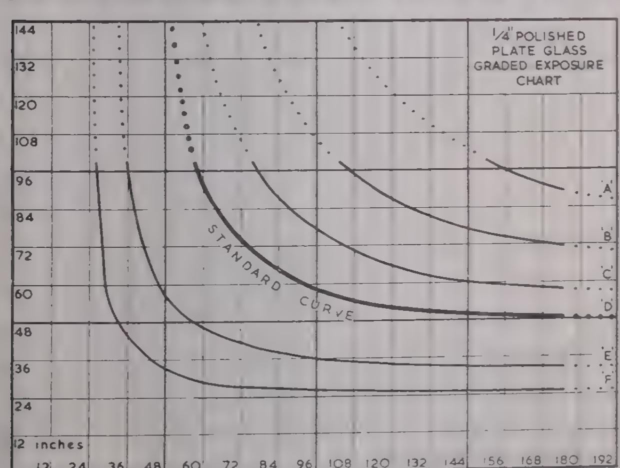
Facts about Glass by Pilkington

Volume 5 **No. 6**

SAFE GLAZING SIZES







The following charts make possible the determination of recommended maximum safe glazing sizes in various thicknesses of Sheet and Polished Plate Glass. These charts have been drawn up based on experience and take account not only of wind pressures but also the numerous other factors which must be taken into consideration. The charts cover loading of vertical glazings in buildings up to 40 ft. in height and pressures due to wind velocity up to 72 m.p.h.

Example, as shown in top chart: 24 oz. Sheet Glass 30″ x 30″ is the largest square pane which is adequate. Rectangular pane 63″ x 20″ is also available.

Example, as shown in centre chart: In ¼″ Polished Plate Glass, 73″ x 73″ is the largest square pane which is adequate. Rectangular pane 144″ x 50″ is also suitable.

It will, of course, be realized that these charts must be used with judgment because exposure conditions can vary widely for similar structures. For example, the leading conditions for a normal shop window are quite different in an urban thoroughfare to those on an exposed front.

To assist in assessing the permissable variation of size, the lower chart has been prepared for ¼″ Plate Glass and deals with graded exposures as defined below:

A Applicable to sheltered urban localities at street level.

B Applicable to normal urban localities.

C Applicable to rural and exposed urban localities but not on sea coasts.

D (Standard Curve) Applicable generally to buildings in all situations except those covered by (E) and (F).

E Applicable to structures liable to be subjected to gales up to 100 m.p.h. velocity.

F Applicable to tornado conditions in tropical latitudes with wind pressures up to 60 lb. per sq. ft.

PILKINGTON GLASS LIMITED

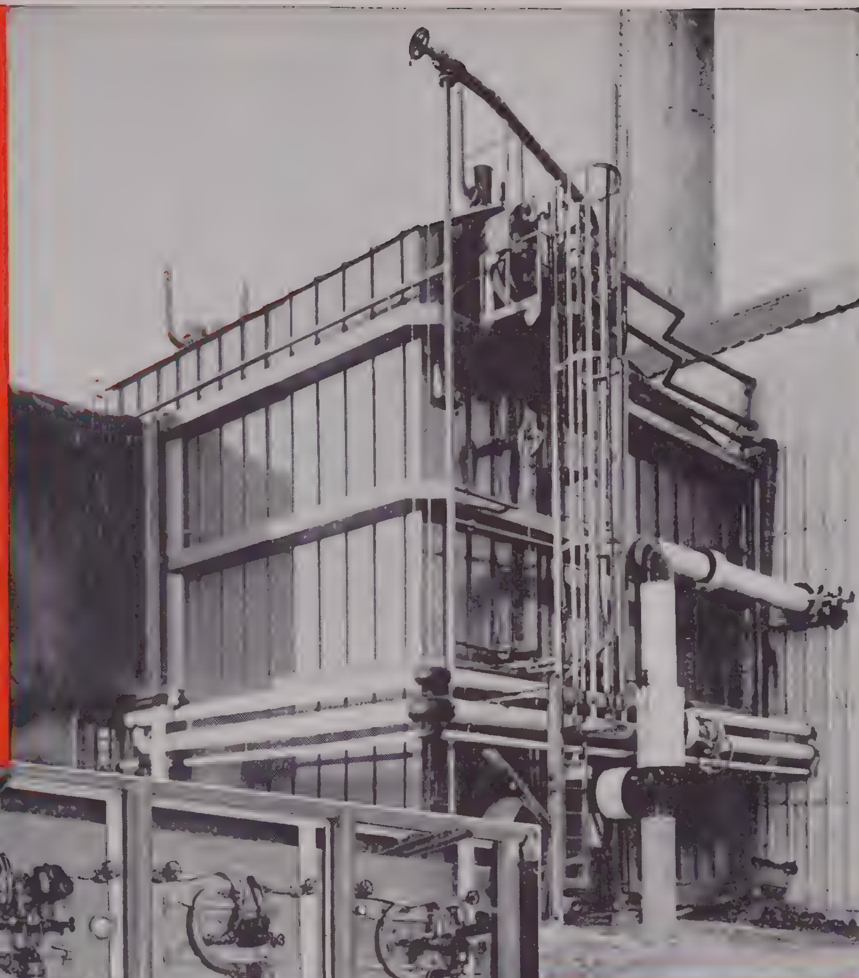
HEAD OFFICE: 165 BLOOR ST. EAST, TORONTO

at

CLARKSON, ONTARIO

NEW Outdoor High-Pressure

BABCOCK BOILER



The above view shows position of outdoor boiler adjoining main boiler house.



Left; View of burner wall taken from the inside of boiler house.

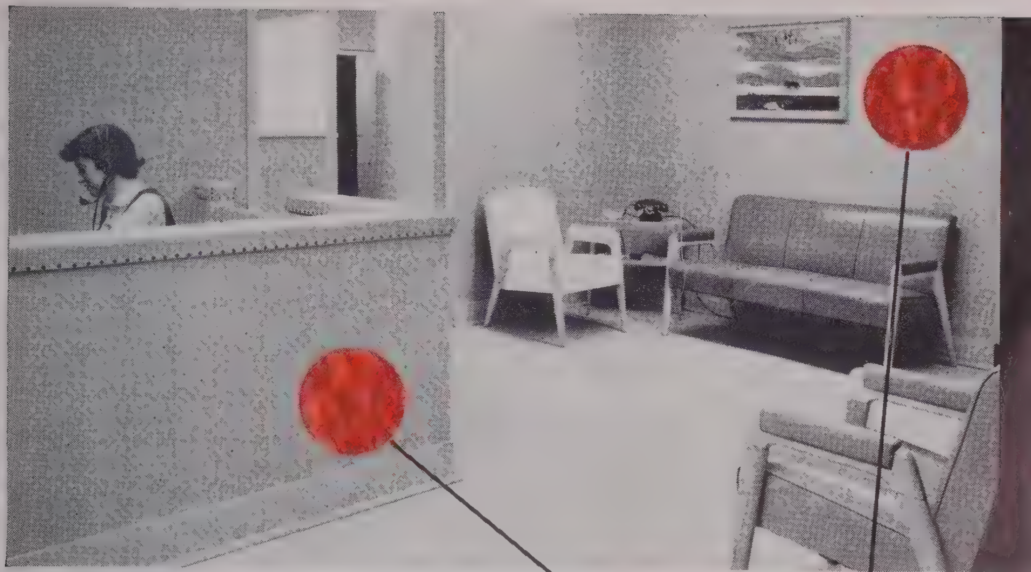
The recently installed Babcock Type F "INTEGRAL-FURNACE" Boiler, at the British American Oil Co. Ltd., Clarkson, Ontario, has a capacity of 120,000 lbs. of steam per hour and is designed for 875 psi. pressure.

The boiler is fitted with six Babcock Oil and Gas Burners.

STEAM FOR PROCESS
BABCOCK
STEAM FOR POWER

BABCOCK-WILCOX AND GOLDIE-McCULLOCH LIMITED, GALT, ONTARIO

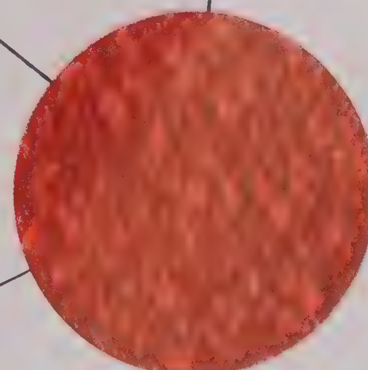
MONTREAL · TORONTO · CALGARY · VANCOUVER



Canadian Industries (1954) Limited use "Fabrilite" throughout the Toronto sales office.

There's Practical Beauty

FOR BOTH FURNITURE AND WALLS WITH "FABRILITE" THE VINYL PLASTIC COATED FABRIC



"Fabrilite" Barony pattern, in persimmon.



The Y.M.C.A. chose "Fabrilite" as a wall-covering in its modern new Toronto building

The appearance of well-planned interiors is enhanced by the use of this versatile fabric that can be used for both walls and furniture. "Fabrilite" looks smart and modern in practically any office or institution layout as well as having popular home applications. It comes in a wide variety of colours and texture-effects that will suggest many interesting decorative ideas. Its tough surface has a remarkable resistance to nicks, cuts, scratches and scuffing and most marks vanish with just ordinary washing. The durability of "Fabrilite" cuts down wall repairs, upholstery repairs and replacement. Write for samples of the new elastic "Fabrilite" —vinyl plastic on a knitted, stretchable fabric. It's especially soft and resilient.

Fabrilite

TRADE MARK

VINYL PLASTIC COATED FABRIC

CANADIAN INDUSTRIES (1954) LIMITED

"FABRIKOID" DIVISION, NEW TORONTO, ONT.

C-I-L

SERVING CANADIANS THROUGH CHEMISTRY





outside inside all around the town

THERE ARE
NEW APPLICATIONS FOR

RIPPOLITE

RIPPOLITE, the new, translucent structural panel is made of shatterproof, weatherproof, lightweight acrylic plastic. This is the panel with DESIGN APPEAL. From awnings to lighting fixtures, canopies to cabinets, walls to movable screens — RIPPOLITE is the answer.

SHAPES AND COLOURS

decorative design "504" (large shiplap pattern)

decorative design "502" (small shiplap design)

decorative design "400" (bat and board offset pattern)

standard corrugated

flat

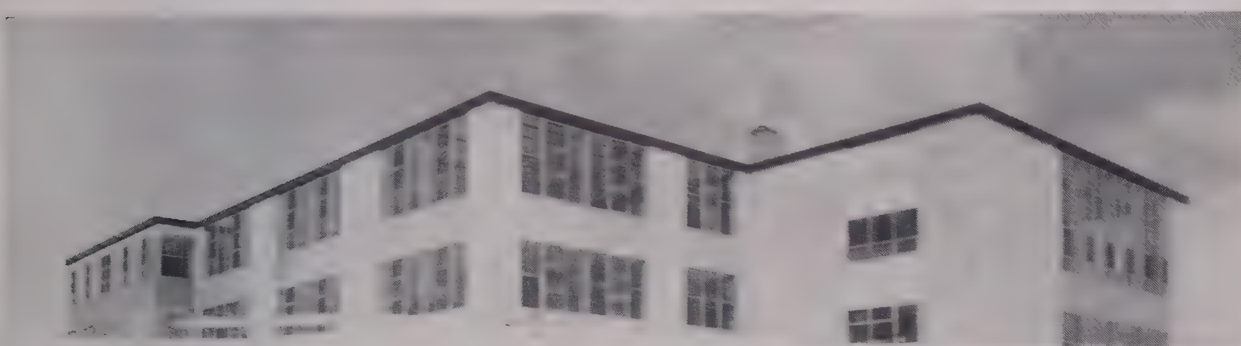
COLOURS

green blue yellow
clear rose white
light green light blue
light brown

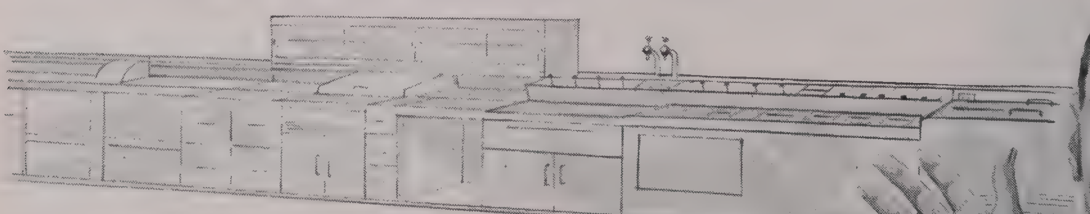
CRYSTAL CGP

CRYSTAL GLASS & PLASTICS LTD.

TORONTO MONTREAL WINNIPEG VANCOUVER



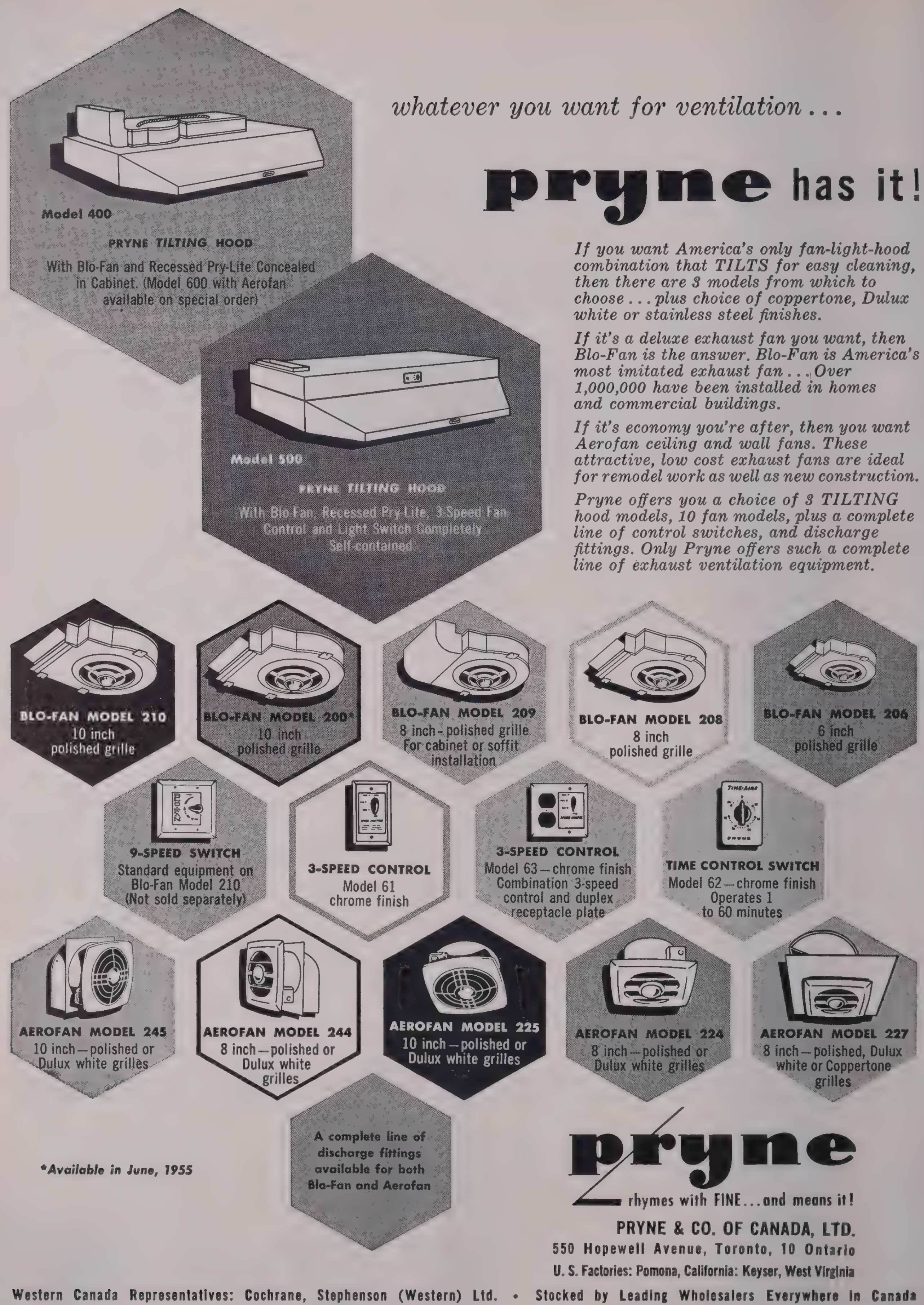












whatever you want for ventilation . . .
pryne has it!
If you want America's only fan-light-hood combination that TILTS for easy cleaning, then there are 3 models from which to choose . . . plus choice of coppertone, Dulux white or stainless steel finishes.
If it's a deluxe exhaust fan you want, then Blo-Fan is the answer. Blo-Fan is America's most imitated exhaust fan . . . Over 1,000,000 have been installed in homes and commercial buildings.
If it's economy you're after, then you want Aerofan ceiling and wall fans. These attractive, low cost exhaust fans are ideal for remodel work as well as new construction.
Pryne offers you a choice of 3 TILTING hood models, 10 fan models, plus a complete line of control switches, and discharge fittings. Only Pryne offers such a complete line of exhaust ventilation equipment.
Model 400
PRYNE TILTING HOOD
With Blo-Fan and Recessed Pry-Lite Concealed in Cabinet. (Model 600 with Aerofan available on special order)
Model 500
PRYNE TILTING HOOD
With Blo-Fan, Recessed Pry-Lite, 3-Speed Fan Control and Light Switch Completely Self-contained.
BLO-FAN MODEL 210
10 inch polished grille
BLO-FAN MODEL 200*
10 inch polished grille
BLO-FAN MODEL 209
8 inch - polished grille For cabinet or soffit installation
BLO-FAN MODEL 208
8 inch polished grille
BLO-FAN MODEL 206
6 inch polished grille
9-SPEED SWITCH
Standard equipment on Blo-Fan Model 210 (Not sold separately)
3-SPEED CONTROL
Model 61 chrome finish
3-SPEED CONTROL
Model 63 — chrome finish Combination 3-speed control and duplex receptacle plate
TIME CONTROL SWITCH
Model 62 — chrome finish Operates 1 to 60 minutes
AEROFAN MODEL 245
10 inch — polished or Dulux white grilles
AEROFAN MODEL 244
8 inch — polished or Dulux white grilles
AEROFAN MODEL 225
10 inch — polished or Dulux white grilles
AEROFAN MODEL 224
8 inch — polished or Dulux white grilles
AEROFAN MODEL 227
8 inch — polished, Dulux white or Coppertone grilles
*Available in June, 1955
A complete line of discharge fittings available for both Blo-Fan and Aerofan
pryne
rhymes with FINE . . . and means it!
PRYNE & CO. OF CANADA, LTD.
550 Hopewell Avenue, Toronto, 10 Ontario
U. S. Factories: Pomona, California: Keyser, West Virginia
Western Canada Representatives: Cochrane, Stephenson (Western) Ltd. • Stocked by Leading Wholesalers Everywhere in Canada

Cartierville, Quebec

"We are very pleased with the efficiency and dependability of our Moffat Cooking Equipment and find it a wonderful aid in maintaining the quality of our meals and enabling us to take care of all dietary variations and requirements.

We use both Moffat Electric and Moffat Vulcan Gas Equipment so that we can maintain our service in case of any current emergency or shortage. They are both well deserving of our praise."

Chef Clavet
Prevost Sanatorium



Kitchen Equipment (left to right)



4106E Electric Range
4106A Electric Range
5745 Gas Range
565B Gas Griddle Broiler
601-1 Electric Broiler
4100T Twin Deep Fat Fryer

Prevost Sanatorium selects

MOFFAT

COMMERCIAL COOKING EQUIPMENT

As "An Important Aid in the Dietary Welfare of Patients"

Today in Prevost Sanatorium, Cartierville, Quebec, Moffat Cooking Equipment is adding notably to the organization and efficiency of the kitchens.

This Equipment is also enabling Chef Clavet and his staff to provide 600 healthful, well-cooked meals every day, including special diets. The flexibility, capacity and trouble-free operation of Moffat Equipment that are so benefiting Prevost Sanatorium are also at YOUR service. And because Moffat is Canada's most complete line, it offers you unlimited combinations whereby it can be tailor-made to your specific kitchen needs.

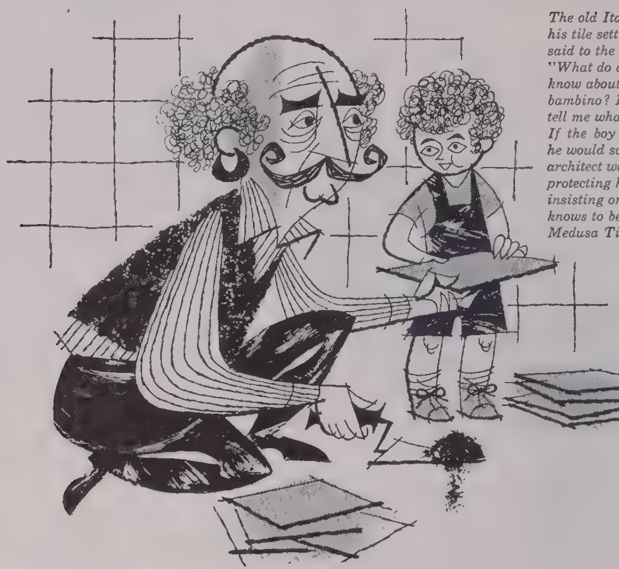
Whatever your business—hotel, restaurant, industrial cafeteria or hospital kitchen, Moffat Equipment can help lower your overhead and improve your operating efficiency. We invite you to consult with our experts.

MOFFAT
COMMERCIAL COOKING EQUIPMENT
Gas and Electric—Canada's Only Complete Line
MOFFATS LIMITED (AVCO-CANADA)
MONTREAL WESTON WINNIPEG VANCOUVER

Other Moffat Installations

ROYAL YORK HOTEL, TORONTO, ONTARIO
SHERATON BROCK HOTEL, NIAGARA FALLS, ONTARIO
CHATEAU LAKE LOUISE, ALBERTA
BANFF SPRINGS HOTEL, ALBERTA
MACDONALD COLLEGE, MONTREAL, QUEBEC
HOTEL VANCOUVER, VANCOUVER, B.C.
BANGOR LODGE, BRACEBRIDGE, ONTARIO
OAKVILLE CLUB LTD., OAKVILLE, ONTARIO
ZUCHTER'S RESTAURANT, TORONTO, ONTARIO
MT. SINAI HOSPITAL, TORONTO, ONTARIO
NANKING TAVERN, TORONTO, ONTARIO

"what do architect know about tile grout . . . bambino?"



The old Italian stopped his tile setting and said to the small boy, "What do architect know about tile grout bambino? How come he tell me what to use?" If the boy could answer he would say the architect was only protecting himself by insisting on what he knows to be best—Medusa Tile Grout.

More architects specify and more tile contractors use Medusa White Tile Grout than any other brand. The reason is, Medusa gives freedom from discolouration, shrinkage and assures a perfect bond between backup and grout. You know the tile will look its best and is there to stay . . . always.

Medusa is not a handy dandy wonder compound that claims it can be used for anything from fixing flats to building buildings. It has only one purpose—pointing ceramic tile. And this it does better than any other. Medusa Tile Grout is easily mixed and smooth to work with, has greater hiding ability, can be used on either wet or green backup and sets extremely hard.

Protect yourself—be sure of the best job by using the best material—specify Medusa White Tile Grout. Inquiries are invited—write today to:

MEDUSA PRODUCTS
COMPANY OF CANADA LIMITED PARIS, ONTARIO

Medusa products are distributed in the Maritimes and Newfoundland by Feron Company Limited, Kempt Road, Halifax, Nova Scotia

55-3



HOPE'S PATENT GLAZING

PERMANENT & WEATHERTIGHT

for Roof and Sidewall Glazing

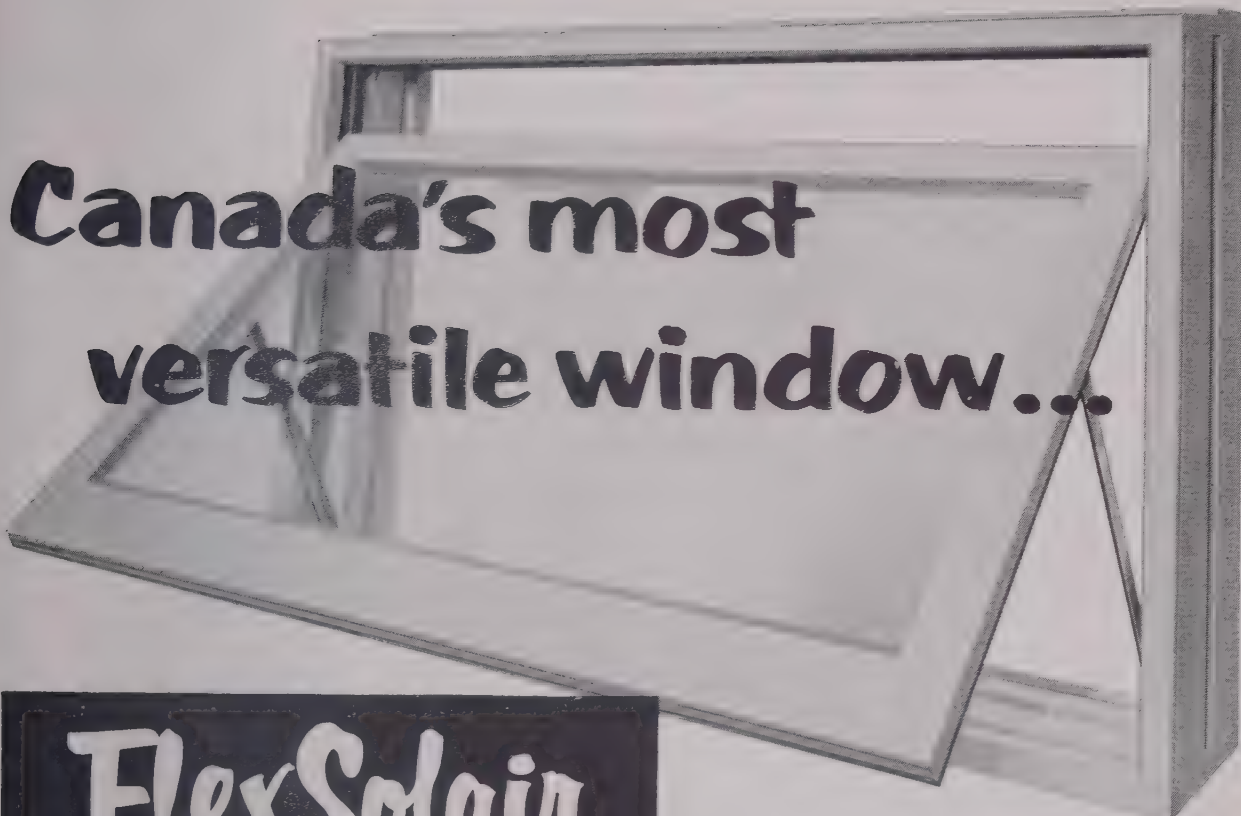
THE INITIAL COST IS THE FINAL COST

HENRY HOPE & SONS OF CANADA LTD

1111 BAY ST., TORONTO *Telephone:* WALNUT 1-6686

AGENTS FOR QUEBEC & THE EAST: DAVID McGILL & SONS LTD., 620 LAGAUCHETIERE ST. WEST, MONTREAL, QUEBEC
IN WESTERN CANADA: WESTERN FABRICATORS LTD., 119 PENDER ST. W., VANCOUVER, B.C.

Canada's most versatile window...



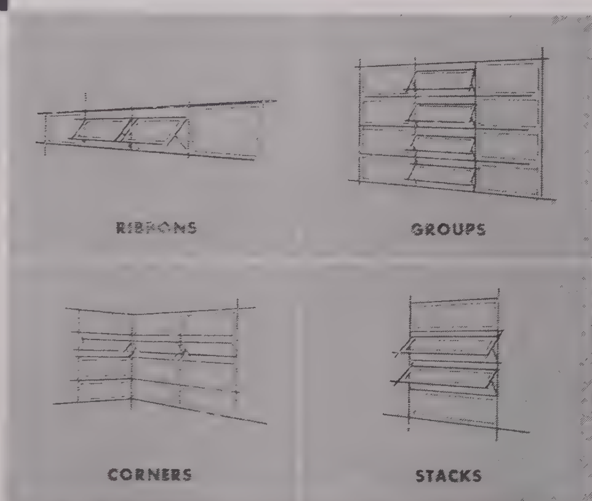
FlexSolair

With Nicholson FlexSolair window units design possibilities are unlimited. You can stack them to any height, group them in any arrangement, stretch them out in ribbons or install them individually. They are available in a wide range of sizes . . . as either operating or fixed units.

FlexSolairs are low cost, awning windows with multiple uses. They're weathertight, easy to operate, and are delivered to the job completely packaged, including self-storing and removable storm panels and screens.

Nicholson FlexSolairs in a home give visible evidence of quality construction that makes houses sell easier and faster.

For the full FlexSolair story fill in the attached coupon and drop it in the mail today.



A. S. NICHOLSON AND SON LIMITED, Burlington, Ontario

Please send detailed drawings and specifications of FlexSolair window.

NAME

FIRM

ADDRESS ....

CITY .... PROV. ....

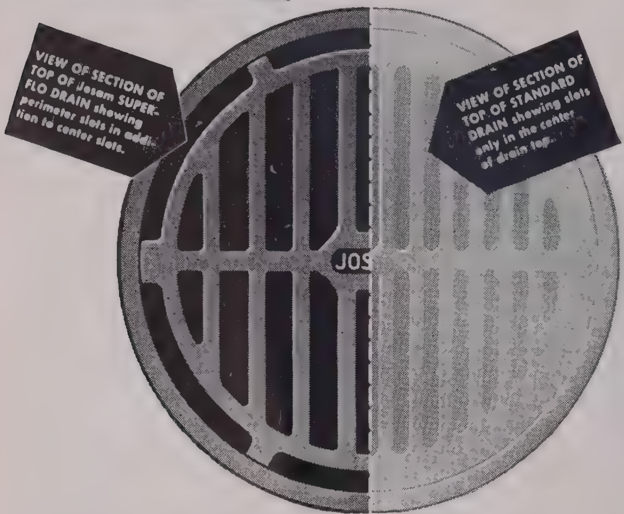
A. S. *Nicholson*
AND SON LIMITED
BURLINGTON
ONTARIO
Branches: Toronto, London, Kingston

NOW... greatest NEW drain development in years!...

Josam

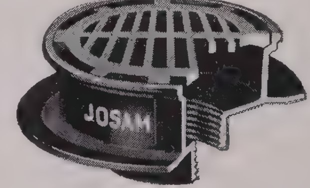
SUPER-FLO FLOOR DRAINS

(PATENTED)



Designed with perimeter slots in the grate which increase free drainage area of the top and permit greater flow into the drain. Waste water enters drain at the very edge of the drain top instead of flowing over the wide rim of conventional drains before it reaches grate opening. Water friction loss is greatly reduced and flow rate (GMP) into Josam SUPER-FLO Drains is greater than flow rate into standard drains of same or larger top. Therefore a Josam SUPER-FLO Drain of smaller top size can be installed to service the same drainage conditions as a larger top size standard drain.

Here are drains that more than meet today's construction demands for over-all economy, easier installation, adaptability to changes, greater sanitation and improved appearance.



Josam Series No. 7000

Send coupon for literature

Josam STANDARD OF THE WORLD

JOSAM CANADA LIMITED
General Offices and Manufacturing Division
130 Bermondsey Road - Toronto 16, Ont.
P.O. Box 130

Saint John • Lambeth • St. Laurent
Windsor • Winnipeg • Regina
Calgary • Edmonton • Vancouver

JOSAM CANADA LIMITED, Dept. A
130 Bermondsey Road, P.O. Box 130, Toronto 16, Ont.

Please send information on SUPER-FLO DRAINS

NAME ....
FIRM ....
ADDRESS ....
CITY .... PROVINCE ....

STELCO

CHAIN LINK FENCE



Maximum Security at Minimum Cost for—

- Industrial and Commercial Locations
- Power Installations
- Railway Yards
- Oil Refineries
- Airports
- Parking Lots
- Sportsgrounds
- Parks
- Homes and Estates

Define and protect your property with Stelco galvanized Chain Link Fence . . . a strong, dignified enclosure, offering lasting protection to land, buildings and equipment. This unyielding, unclimbable fence resists rust, corrosion, fire and abuse — provides years of service with a minimum of maintenance.

For an estimate without obligation, contact any Stelco Sales Office.

THE STEEL COMPANY OF CANADA, LIMITED
Executive Offices: Hamilton — Montreal 55241.C

Sales Offices: Halifax, Saint John, Montreal, Ottawa, Toronto, Hamilton, London, Windsor, Winnipeg, Edmonton, Vancouver. J. C. Pratt & Co. Limited, St. John's, Newfoundland.

Here's Why Prowse "All-Welded" Kitchen Equipment is *"FIRST CHOICE"*

The newest thing in kitchens today, is PROWSE "All-Welded" Equipment. PROWSE KITCHEN EQUIPMENT is solidly welded from gleaming stainless steel, giving sparkling cleanliness at all times.



Corner of the kitchen of the Allan Memorial Institute of the Royal Victoria Hospital.

These are Exclusive PROWSE Features!

1. Prowse Kitchen Equipment is kept clean without effort, because it's entirely welded. There are no corner angles to collect dirt and crumbs, no bolts or rivets, no soldered joints to crack or discolour.
2. Prowse Kitchen Equipment eliminates every grease-collecting surface. Your choice of "top-hung" cupboard doors with grease-free or die-drawn lower channels.
3. Prowse Kitchen Equipment is available with exclusive Prowse designed drawers . . . smooth, quiet-running drawers, solidly mounted on noiseless bearings, and easily removed by simply tilting the front.

These, and many other features make PROWSE KITCHEN EQUIPMENT the "First Choice" of Canada's leading architects.

Recent installations include, The Allan Memorial Institute of the Royal Victoria Hospital, shown above, The Montreal General Hospital, The Bell Telephone Co. Limited, Ottawa and Montreal, Jasper Park Lodge.

To be assured of PROWSE Quality, write for a copy of our Standard Specifications of Workmanship before you plan your installation. No charge, of course.

Prowse
LIMITED

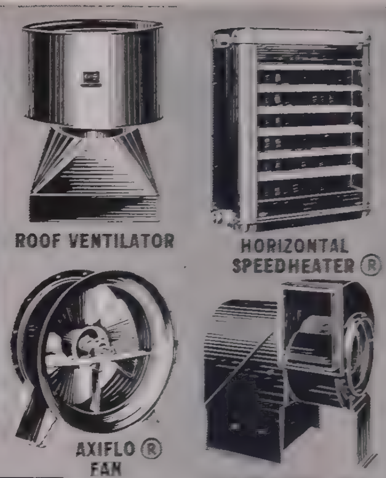
T-1-5

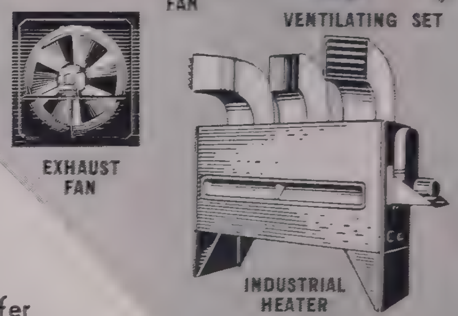
KITCHEN EQUIPMENT FOR HOSPITALS, HOTELS AND RESTAURANTS

350 DECARIE BOULEVARD, ST. LAURENT • MONTREAL 9, QUE.

Where Efficiency is demanded . . .

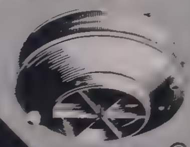
Sturtevant is specified





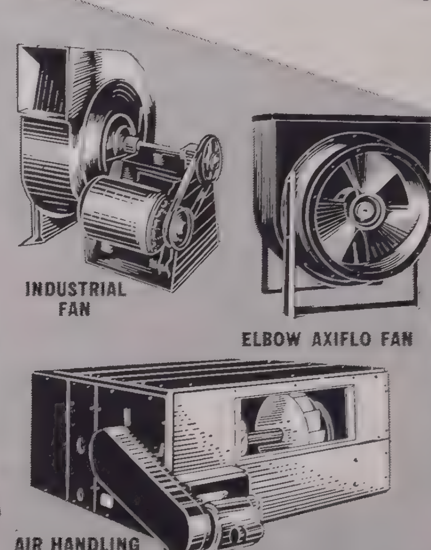
Air handling equipment, when properly engineered and installed, "puts air to work" for you — economically. And "working air" steps up efficiency and lowers operating costs – two factors that will enable you to get the jump on competition wherever man and machines are at work.

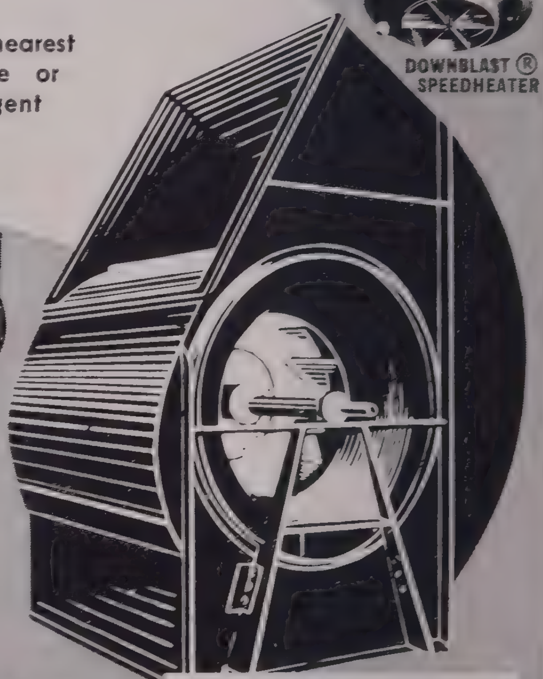
As the only manufacturer of a complete line of air handling, air cleaning and air conditioning equipment, the B. F. Sturtevant Company of Canada Limited is prepared to offer you unbiased recommendations for the selection of equipment, systems and designs for any job of putting "air to work".



Call or write your nearest Sturtevant office or agent







B. F. STURTEVANT COMPANY OF CANADA LIMITED

(a Subsidiary of Canadian Westinghouse Company Limited)

HEAD OFFICE & PLANT — GALT, ONTARIO
SALES OFFICES — TORONTO, MONTREAL, HAMILTON

Sturtevant *Puts Air to Work*

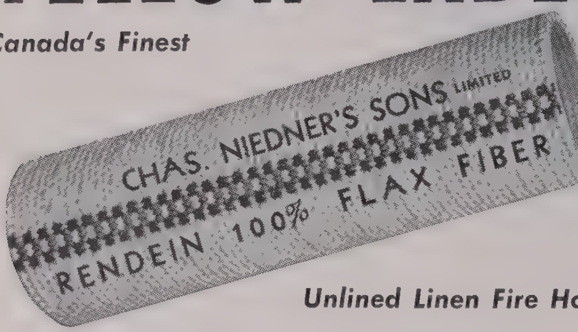
AGENTS — HALIFAX - E. S. Stephenson & Company; QUEBEC CITY - J. L. Beaudet; EDMONTON - Eugene Bolstad Limited; CALGARY - Electrical Contracting & Machinery Co. Ltd.; ST. JOHN'S - Heap and Partners (Newfoundland) Limited.

BE SPECIFIC
AND MORE ECONOMICAL

For the Best Indoor Protection

Specify RENDEIN YELLOW LABEL

Canada's Finest



Unlined Linen Fire Hose

EVERY INCH DISTINCTIVELY MARKED WITH THE RENDEIN BLACK, RED AND YELLOW STRIPE

If fire emergency comes, pure linen RENDEIN Yellow Label is ready for instant use. RENDEIN dependability has been proved in every way through more than half a century. In the tests for "burst" and "leakage", RENDEIN far exceeds the requirements of the Underwriters' Laboratories.

Made specifically for indoor protection — RENDEIN is superior because of its light weight, compactness, convenience of use by ONE PERSON and greater durability under conditions of dryness, heat and atmosphere.

RENDEIN bears the Yellow Label of the Underwriters' Laboratories of Canada and meets fully the specifications of the Associated Factory Mutual Fire Insurance Companies.

Mildewproofed RENDEIN Available

Mildewproofing by the Niednerizing process guarantees longer life. Niednerized RENDEIN hose is free from rot and mildew, odorless, non-toxic, unchanged in appearance, feel, flexibility and strength.

RENDEIN Yellow Label Unlined Fire Hose is supplied as follows: SIZES 1¼, 1½, 2, 2½ inches; LENGTHS: 50, 75, 100 and 300 feet. Brass Couplings and Nozzles in all standard and specified threads and sizes.

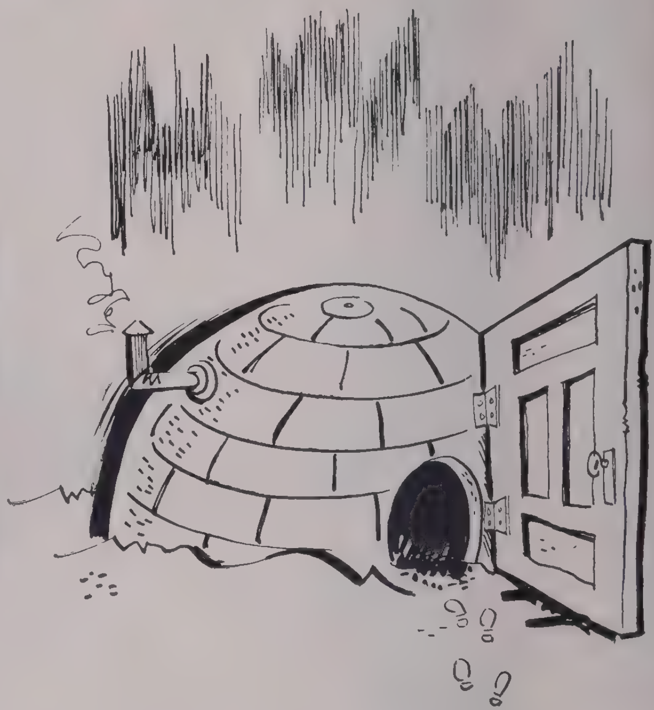
NOTE: Because of the variety of threads in use, it is best to send a sample if you are in doubt about your needs.

RENDEIN Yellow Label is made by the makers of BLACK CHAIN Forestry Hose.

NIEDNERS PURE LINEN FIRE HOSE FOR OVER 50 YEARS

Chas. **NIEDNER'S** *Sons*
LIMITED
SINCE 1914
COATICOOK QUEBEC CANADA

A DOOR...



ON AN IGLOO?

AN Eskimo never forgets to close his door when he goes out. There isn't any door to close. A door wouldn't be much good on an igloo because the inside and outside temperatures rarely vary more than 20 degrees.

But *your* house isn't like that. You spend money to heat your home. The difference between *your* inside and outside temperatures may be as high as 90 degrees.

So your door and frame must give proper insulation. If they do not, heat and moisture will penetrate them, and much of your expense will go for nothing.

White Pine is nature's answer to your problem. Doors and frames made of this wood have the insulating properties that make for heating economy. They also have the tradition and elegance sought in modern architecture.

Make sure you get genuine White Pine. Just ask your lumber dealer for **Pinus strobus.** *You will recognize it by this famous trademark.*

WHITE PINE BUREAU

CANADIAN LUMBERMEN'S ASSOCIATION

27 GOULBOURN AVENUE, OTTAWA, ONTARIO

When your plans call for a BUILT-UP ROOF



...consider a Brantford COLD PROCESS ROOF

● Brantford Cold Process Built-Up Roofs are the practical solution for industrial and commercial buildings. They provide lasting protection from the ravages of weather and effectively seal the entire surface against the inroads of moisture. The asphalt emulsion coating stands up through extremes in temperature. It won't blister or peel in summer — won't shrink or crack in winter.

Brantford Cold Process Roofs offer important savings in both time and money. Material costs are low — no heating apparatus is required — and semi-skilled labour can do a fast, professional job. When you specify Brantford Cold Process Roofs you can assure your clients of low material and application costs and minimum maintenance needs.



"It's the covering that counts"

Brantford Roofing Products

PRODUCTS

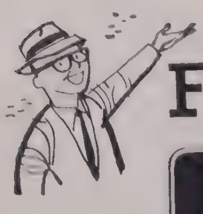
Asphalt Shingles	Sealed-In Siding
Roll Roofings	Building Papers
Roof Coatings	Built-Up Roofings
Asphalt Mastic Flooring	Waterproofing Materials
Insulation Board	Hardboard

Brantford Roofing Company Limited, Brantford, Ontario
Brantford Roofing (Maritimes) Limited, Saint John, New Brunswick
Offices and Warehouses: Brantford, Toronto, Montreal, Winnipeg, Saint John, N.B.

9A/55

RESIDENTIAL — FARM — INDUSTRIAL





Fiberglas BUILDING INSULATION is the clincher!

FIBERGLAS*
FIBERGLAS CANADA LIMITED

FIBERGLAS CANADA LIMITED
GENERAL OFFICES
50 ST. CLAIR AVENUE WEST, TORONTO, ONTARIO
Sales Offices
MONTREAL • OTTAWA • TORONTO • WINNIPEG • VANCOUVER

DISTRIBUTED BY

ALEXANDER MURRAY & COMPANY LIMITED

BUILDING PRODUCTS LIMITED

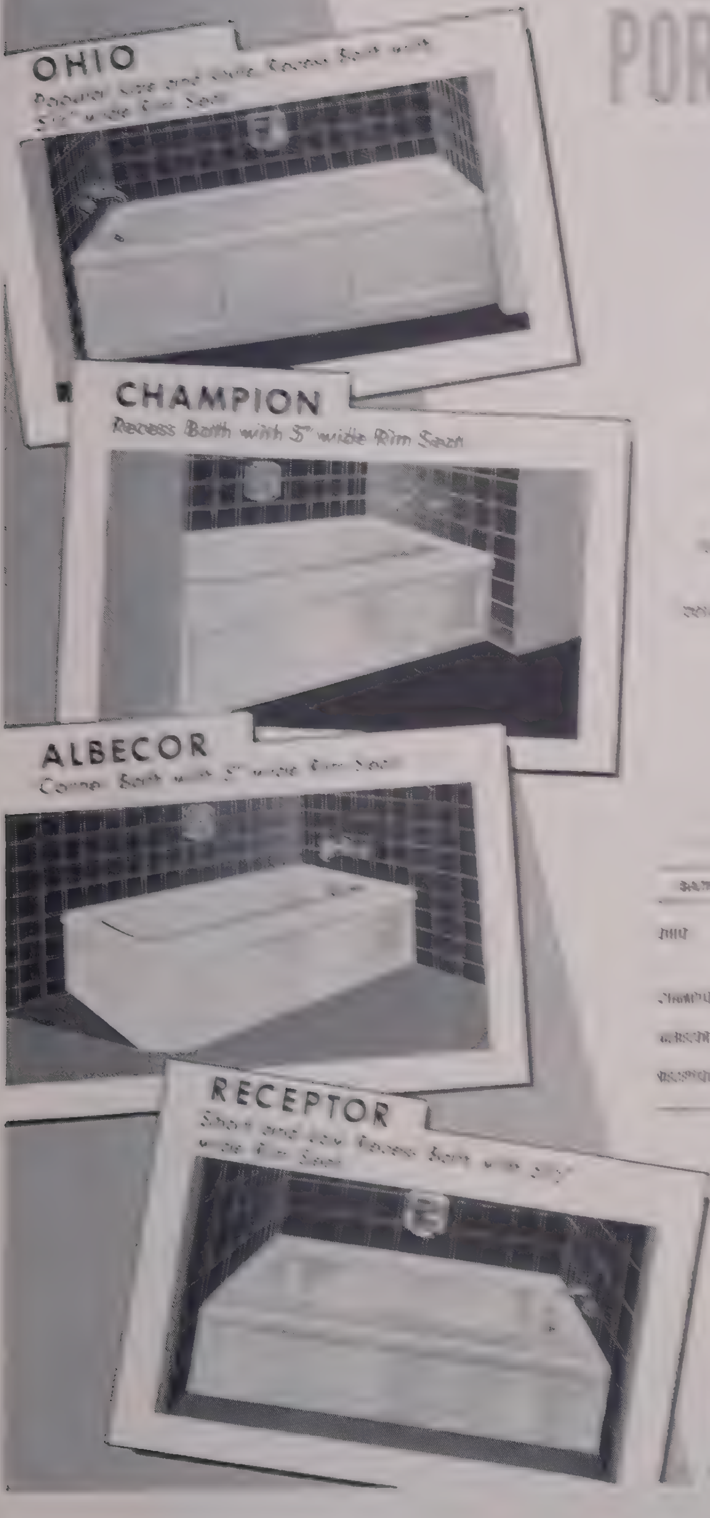
CANADA ROOF PRODUCTS LIMITED

INSULATION INDUSTRIES (CANADA) LIMITED

*T.M. Reg'd.

TO MEET A *Variety* OF INSTALLATION REQUIREMENTS

...LIGHTWEIGHT PORCELAIN-ON-STEEL BATHS...



Whether a corner or recess or extra low bath is required—now you can take advantage of the remarkable light weight of porcelain-on-steel.

These different types are now available for your selection and installation. Two men can easily handle any one of them. Only about 1/3 the weight of cast iron baths of similar sizes, they're especially valuable for installing a desired extra bathroom without increasing the flooring supports.

They're all made of heavy gauge steel, with reinforced construction, for strength and rigidity ... with [illegible] titanium enamel surfaces for easy cleaning ... integral wall guard to prevent water seepage ... all available in SIX attractive colours as well as white.

You'll find full details in your Plumbing Fixtures "Blue Book".

▶ *Basic Specifications*

BATH	BATH SIZE	WIDTH	HEIGHT	SHIPPING WEIGHT
OHIO	5' 0"	Centre, 33-1/2" Ends, 30-5/8"	15-1/2"	[illegible] lbs.
CHAMPION	5' 0"	31-5/8"	[illegible]	[illegible] lbs.
ALBECOR	5' 0"	[illegible]	[illegible]	[illegible] lbs.
RECEPTOR	[illegible] 6"	30-5/8	12"	92 lbs.

IN WESTERN CANADA

ALLIANCEWARE, LTD.

VANCOUVER, B.C.

IN EASTERN CANADA

CRANE STEELWARE LIMITED

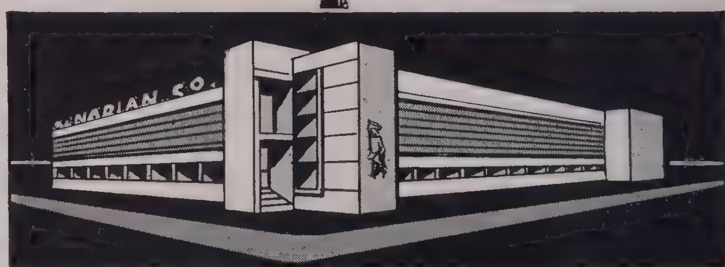
QUEBEC, P.Q.

Bisco makes the modern building!



Modern buildings call for modern building materials. Bisco materials are all that and more! Only the finest of raw ingredients are used by *Bisco* . . . They are processed with the latest techniques and they are backed up by one of Canada's oldest and most reputable manufacturers. Add it all up and you'll see why Bisco "Makes the Modern Building!"





- "Fleece Line" Rockwool
- Insulated Sidings
- Asphalt Paints
- Plastic Cements
- "Micafil" Vermiculite Insulation
- Roof Coatings
- Dry Sheathings
- B.U.R. Materials
- Asphalt Felts
- Aluminum Insulation
- Tarred Felts
- Roll Sidings
- Asphalt Shingles
- Roll Roofings
- Building Papers

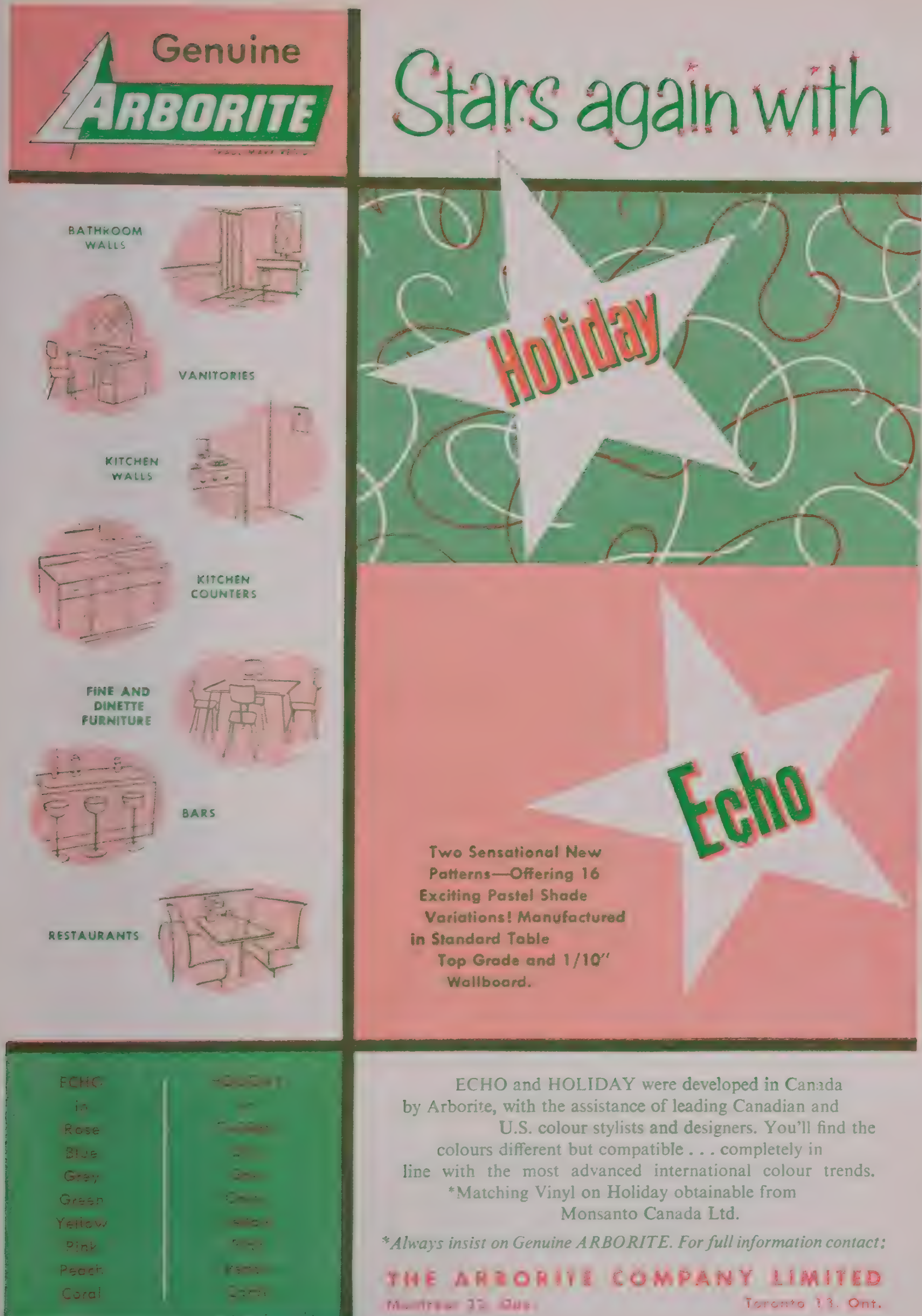
Bisco

BISHOP ASPHALT PAPERS LIMITED

Plants at: Portneuf Station, P.Q., Toronto and London, Ont.

Warehouses and Branches: Quebec & Montreal, P.Q., Toronto, Ont., Saint John, N.B.

55-2

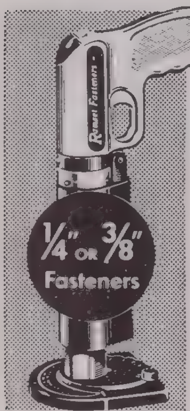

Genuine
ARBORITE
Stars again with
Holiday
Echo
BATHROOM WALLS
VANITORIES
KITCHEN WALLS
KITCHEN COUNTERS
FINE AND DINETTE FURNITURE
BARS
RESTAURANTS
Two Sensational New Patterns—Offering 16 Exciting Pastel Shade Variations! Manufactured in Standard Table Top Grade and 1/10" Wallboard.
ECHO
in
Rose
Blue
Grey
Green
Yellow
Pink
Peach
Coral
ECHO and HOLIDAY were developed in Canada by Arborite, with the assistance of leading Canadian and U.S. colour stylists and designers. You'll find the colours different but compatible . . . completely in line with the most advanced international colour trends.
*Matching Vinyl on Holiday obtainable from Monsanto Canada Ltd.
*Always insist on Genuine ARBORITE. For full information contact:
THE ARBORITE COMPANY LIMITED
Toronto 13, Ont.

Effective June 1st

REDUCED PRICES

On Light Duty

Ramset Fasteners



DRIVE PINS
$8.00 UP PER 100

•

THREADED STUDS
$9.00 UP PER 100

•

PRICES OF FASTENERS SUBJECT TO QUANTITY DISCOUNT

•

22 CARTRIDGES
$5.00 UP PER 100

•

PROMPT DELIVERY FROM COMPLETE STOCK IN ALL INDUSTRIAL CENTRES

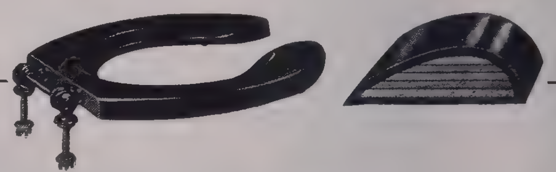
Ramset Fasteners produced in Canada since 1949

RAMSET FASTENERS LTD.
11-15 Laplante Ave. Toronto, Ont.

THE *ONLY* TOILET SEAT *GUARANTEED* AND PROVEN FOR 25 YEARS!

VICEROY RUBWOOD

Hard-rubber-covered, 5-Ply-core Toilet Seats



Preferred by Architects, Building Contractors and Plant Engineers for their trouble-free service throughout the world. Costs for repairs or replacements are eliminated. These seats are easy to keep clean, impervious to acids, disinfectants and abrasion of scrubbing. Will retain their high gloss indefinitely.

VICEROY

VICEROY MANUFACTURING COMPANY LIMITED
TORONTO • MONTREAL • WINNIPEG • VANCOUVER

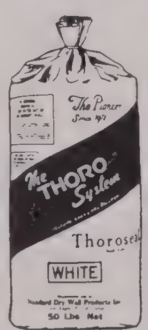
ELIMINATE—

WATER penetration

in large or small buildings

The **THORO** System

for sealing of all interior and exterior masonry surfaces.



Economical THORO products—WATERPLUG, THOROSEAL and QUICKSEAL—used individually or collectively, stop running water, seal walls, provide beautiful finished surfaces,

INCLUDE **THORO** in specifications

THOROSEAL . . . base coating to fill and seal all interior or exterior masonry surfaces, above or below grade. Uniform finish brushes on.

WATERPLUG . . . quickset, hydraulic compound. Stops running water, seepage immediately . . . permanently.

QUICKSEAL . . . finishing coat in 16 attractive colors. Complete surface sealing. Durable. Applied by brush. Also a complete line of masonry waterproofing, repairing and maintenance materials.

Write for illustrated literature

Ontario and Western Provinces Write:
THORO BUILDING MATERIALS LTD.
393 Birchmount Rd., Toronto

Quebec and Maritimes Write:
WEBSTER AND SONS LIMITED
Montreal - Canada Cement Building
Quebec City - 218 Crown St. Maritimes - Truro, N.S.



F-320—IROQUOIS

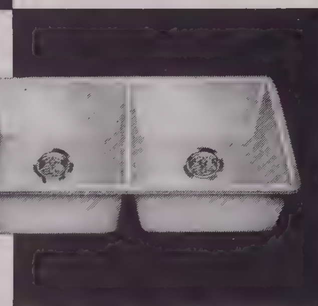


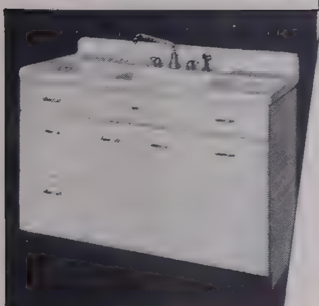
F-397—SARNIA

F-398—ROCKCLIFFE



F-399—KINGSTON





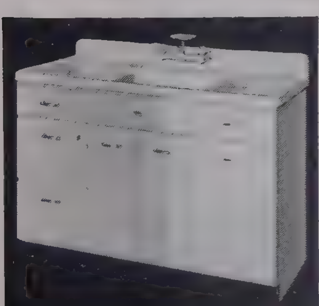
F-286—SUNNYCREST

COMPLETE SINK SELECTION

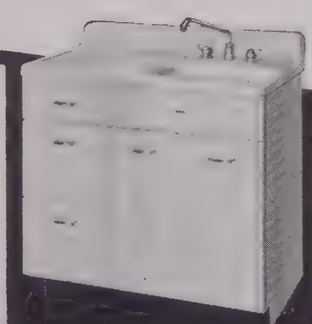
DRAINBOARD MODEL or built-in counter-top style... one or two compartments... in gleaming, acid-resisting "Appliance White" ... the kitchen sink preferred for your installation is yours to choose in the Port Hope quality line.

Porcelain Enameled Cast Iron All combine the endurance of cast iron with the gleaming, easy-to-clean beauty of porcelain enamel.

F-287—SUNNYCREST



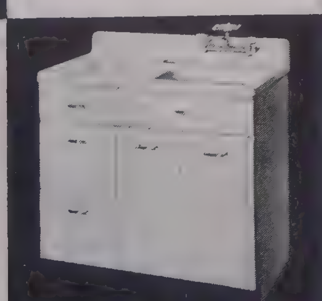
F-288—STEWARDESS



5-5528

For full details, see your Plumbing Fixtures "Blue Book".

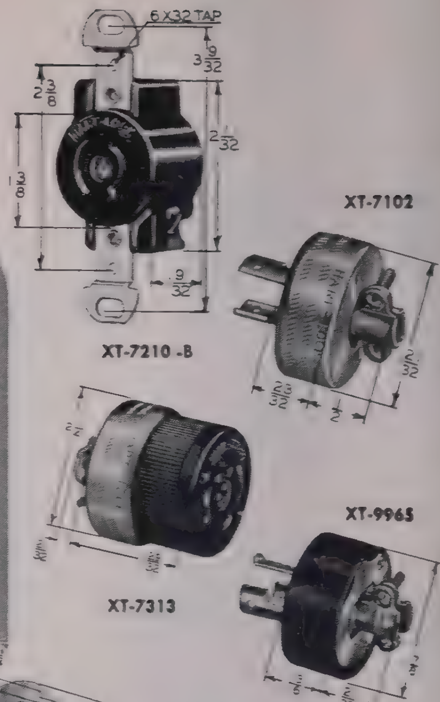
F-289—STEWARDESS

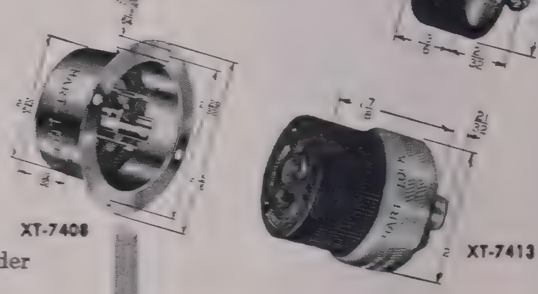


Port Hope Sanitary
Manufacturing Company Limited

Manufacturers of Porcelain Enameled Cast Iron Fixtures at PORT HOPE, Ont.

Specially designed for PORTABLE electrical equipment





Interlocking SEPARATE CORD CONNECTORS by HART·LOCK

New Features Give Efficient, Uninterrupted Production

QUICKER AND EASIER TO INSTALL

Optional back wiring makes connections neater and safer. Handy Wire Strip Gauge on back plate instantly gives correct lengths.

RUGGED CONSTRUCTION

Constructed of only top quality materials for long life under severe conditions. Ferrous metal parts are heavily zinc plated for extra corrosion resistance.

ADAPTABLE

Interchangeable with older type interlocking devices. Grounding models available. Receptacles and connectors will accommodate polarized or non-polarized caps.

EXCLUSIVE "CONTROLLED-TENSION" INNER CONTACTS

U-type, one-piece construction of heavy bronze with single staking is stronger . . . lasts longer . . . more efficient electrically.

This means that you, THE ARCHITECT . . . can specify HART-LOCK Interlocking Wiring Devices – knowing that they will more than meet the needs of your industrial clients.

HART-LOCK Separable Cord Connections are available in 2-, 3- and 4- wire caps, connectors, plug bases, motor bases, motor plugs and flush receptacles for 20 amps. 250 V., A.C. or D.C.—also 3- and 4- wire, 10 amps. 575 V., A.C.



ARROW-HART & HEGEMAN

(CANADA) LIMITED
INDUSTRY STREET
TORONTO 15, ONTARIO — TELEPHONE MUrray 1101

Representatives:
Cochrane-Stephenson (Western) Ltd., Winnipeg, Calgary, Edmonton, Vancouver
George C. Robinson, Saint John N. B.

5501

A man you can count on . . .

HE'S WORTH A LOT, the man you can count on. When you're on a big construction job, you have a hundred things to look after. You need someone you can trust to do specific jobs and do them right.

This is exactly what happens when your plans call for a Barrett Specification* Roof — the Barrett representative makes your roof his personal concern.

That's because the Barrett man stakes his reputation on the success of your roof. He *has* to see that the roof is right . . . that you are completely satisfied with the job. His business future depends on it.

Remember this next time you have an industrial roof to do. When you have Barrett on the job, you have men you can *count* on.



Eaton's new Service Building, near Toronto, will hold merchandise brought from all over the world. Ken Rose, Superintendent for Redfern Construction, is shown here (left) discussing the job with Barrett's special representative John Lyons. John's wide roofing experience came in handy. He arranged for "hot-pitch delivery"— for greater speed and economy on such a large job.



Ton after ton of roofing materials were required for the gigantic warehouse. So scheduling of shipments was an important part of the job. Luckily, Barrett's warehouse supervisor John Adamson had handled such big jobs before, was able to keep orders rolling smoothly.



Technical assistance on a big job comes in handy. Bert Geary, Barrett supervisor, stays close by for the T. Eaton Co. project, and provides additional technical answers for the many questions that come up on a job of this size.

Barrett*

"Between the World and the Weather Since 1854"

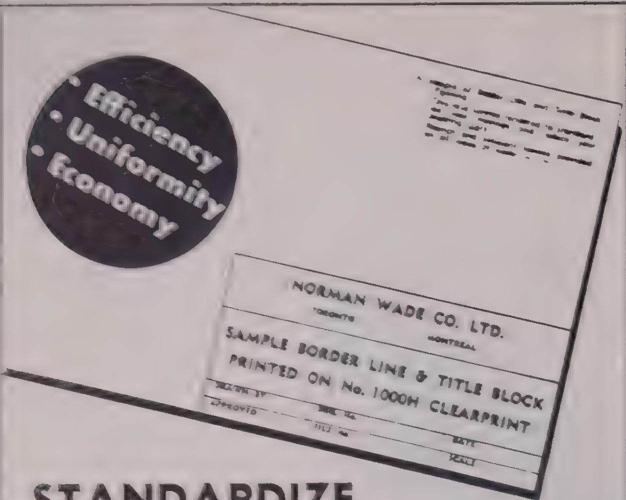
THE BARRETT COMPANY, LIMITED

Offices in Halifax, Montreal, Toronto, Winnipeg and Vancouver

**Reg'd Trade Mark*


Specify
Burlington
RAIL STEEL
REINFORCING
BARS
Size of Burlington HI-BOND reinforcing bars may be quickly determined. The method of marking shown on the bar to the left is your indication of size. The number of spaces between marks indicates the bar size number.
For nearly half a century the designers and builders of Canada's leading structures have chosen Burlington reinforcing bars. Rolled from selected steel rails, Burlington bars provide a higher elastic limit . . . a margin of strength that can be used for load carrying in accordance with the latest CSA specifications, G30.2 for rail steel bars and G30.6 for Hi-Bond deformed bars, or as an extra factor of safety.
Specify rail steel reinforcing bars by Burlington. Recent tests at the Carnegie Institute of Technology in Pittsburgh clearly demonstrate the superiority of rail steel reinforcing bars when reinforced concrete beams are subjected to near-blast loads.
Burlington bars are available in plain or Hi-Bond, in a full range of sizes.
Plain
Hi-Bond
MEMBER
CANADIAN CONSTRUCTION ASSOCIATION
MEMBER
RAIL STEEL REAL STRENGTH
RAIL STEEL BAR ASSOCIATION
BURLINGTON STEEL COMPANY LIMITED
HAMILTON, CANADA





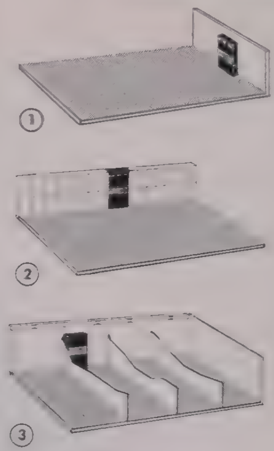
STANDARDIZE YOUR TITLE BLOCKS!

How much costly time do you spend in lettering title blocks, and drawing border lines? You will be surprised to learn how little it costs to pre-print your tracing paper sheets. Ask us for further information, and incidentally, try CLEARPRINT tracing paper next time. Samples on request.

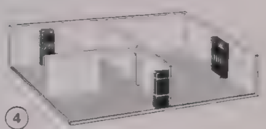
NORMAN WADE COMPANY LIMITED

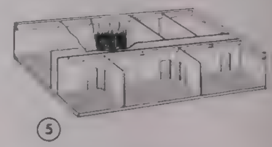
391 Yonge St. TORONTO • 4263 St. Catherine St. West MONTREAL

Chrysler Airtemp 'Packaged' Air Conditioners are Easily Installed... Require Less Space and Give Greater Installation Flexibility



1. **IN THE SPACE:** "Free Blow" requires no duct work.
2. **"BUILT-IN":** Can easily be "built-in" to shelving, cabinets, recesses or alcoves.
3. **SIMPLE DUCT WORK:** Where area is partitioned the unit can be centrally located and simple duct work will carry conditioned air supply to other spaces.
4. **MULTIPLE SPACED UNITS:** Where area is made up of large partitioned rooms smaller and individual units can be placed in each room without duct work.
5. **MULTIPLE GROUP UNITS:** Ideal for extremely large areas or entire building. Several units are combined to form a "central station" and simple duct work carries conditioned air to other areas as desired.





Here are a few of the many possibilities of installation when you select Chrysler Airtemp.

IN CANADA

THERM-O-RITE PRODUCTS LIMITED
183 DUKE STREET, TORONTO

LEAKY OUTSIDE WALLS?



Make them water-repellent and add new beauty to your home, factory, commercial, or administrative building with

H Y D R O C I D E

COLORCOAT

*T. M. Reg. U. S. Pat. Off.

an entirely new concept in protective Siliconated coatings—one coat gives a colorful surface many times thicker than just paint!

Achieved by **Sonneborn** RESEARCH

For over 50 years suppliers of quality building products.

For buildings not requiring color,
HYDROCIDE S·X* COLORLESS
gives positive water repellency and checks efflorescence with one application.

SEND FOR FURTHER FACTS

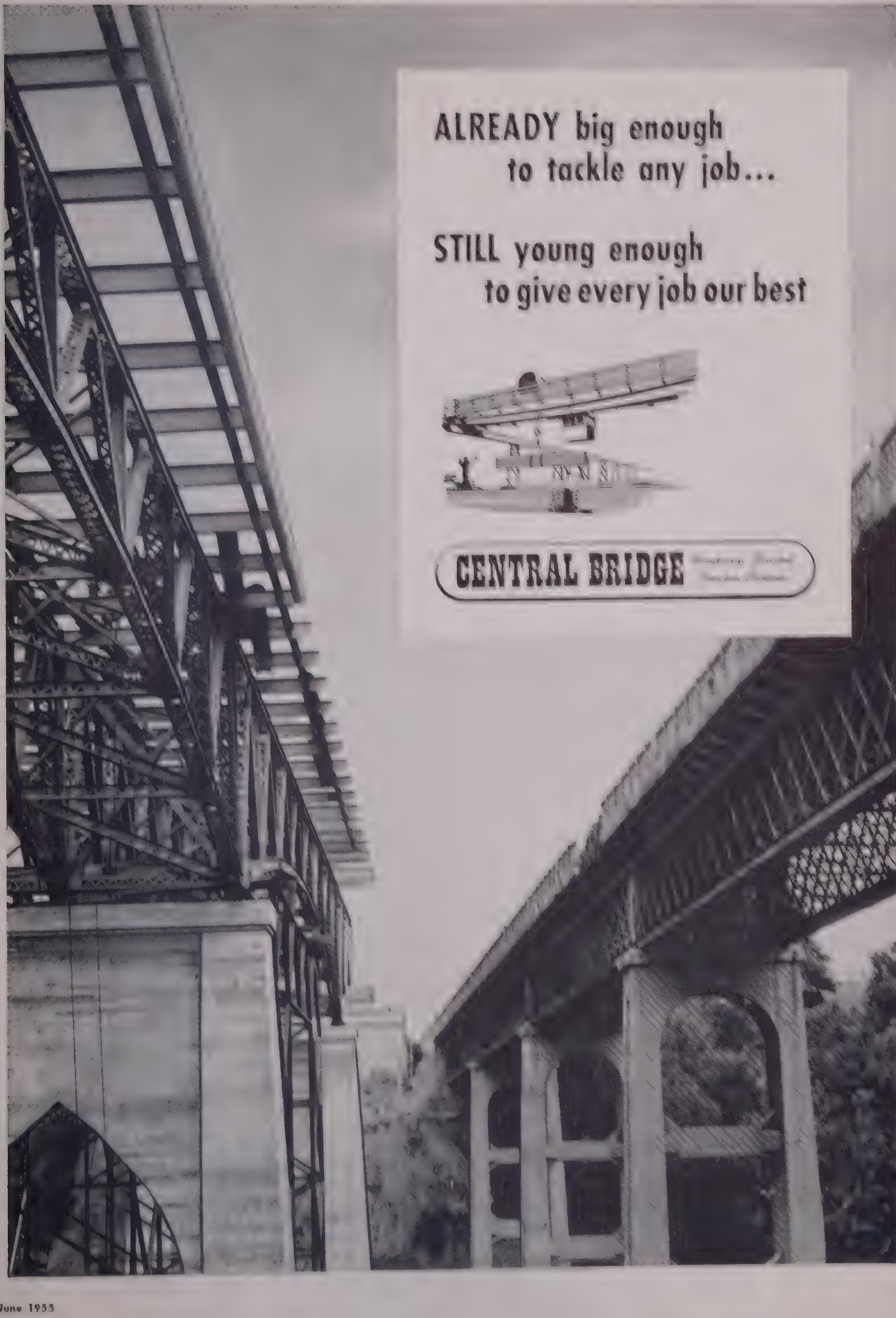
Canadian Distributors for
L. Sonneborn Sons, Inc.
404 Fourth Ave.
New York, N.Y.

Duchess Soap and Chemical Co., Ltd.
86 Parliament Street
Toronto 2, Ontario

J. R. Bentham Sales Co.
1160 Hamilton Street
Vancouver, B. C.

W. J. Coleman & Co., Ltd.
9510 105th Avenue
Edmonton, Alberta

Fergusons, Ltd.
1 Buckingham Street
Halifax, Nova Scotia


ALREADY big enough
to tackle any job...
STILL young enough
to give every job our best
CENTRAL BRIDGE







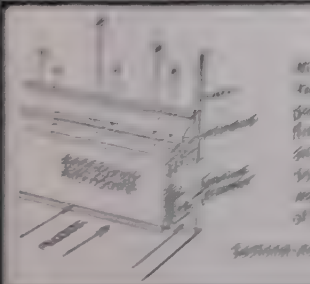
Men who Build for the Future Specify

Webster

BASEBOARD HEATING



TO STAND THE TEST OF TIME



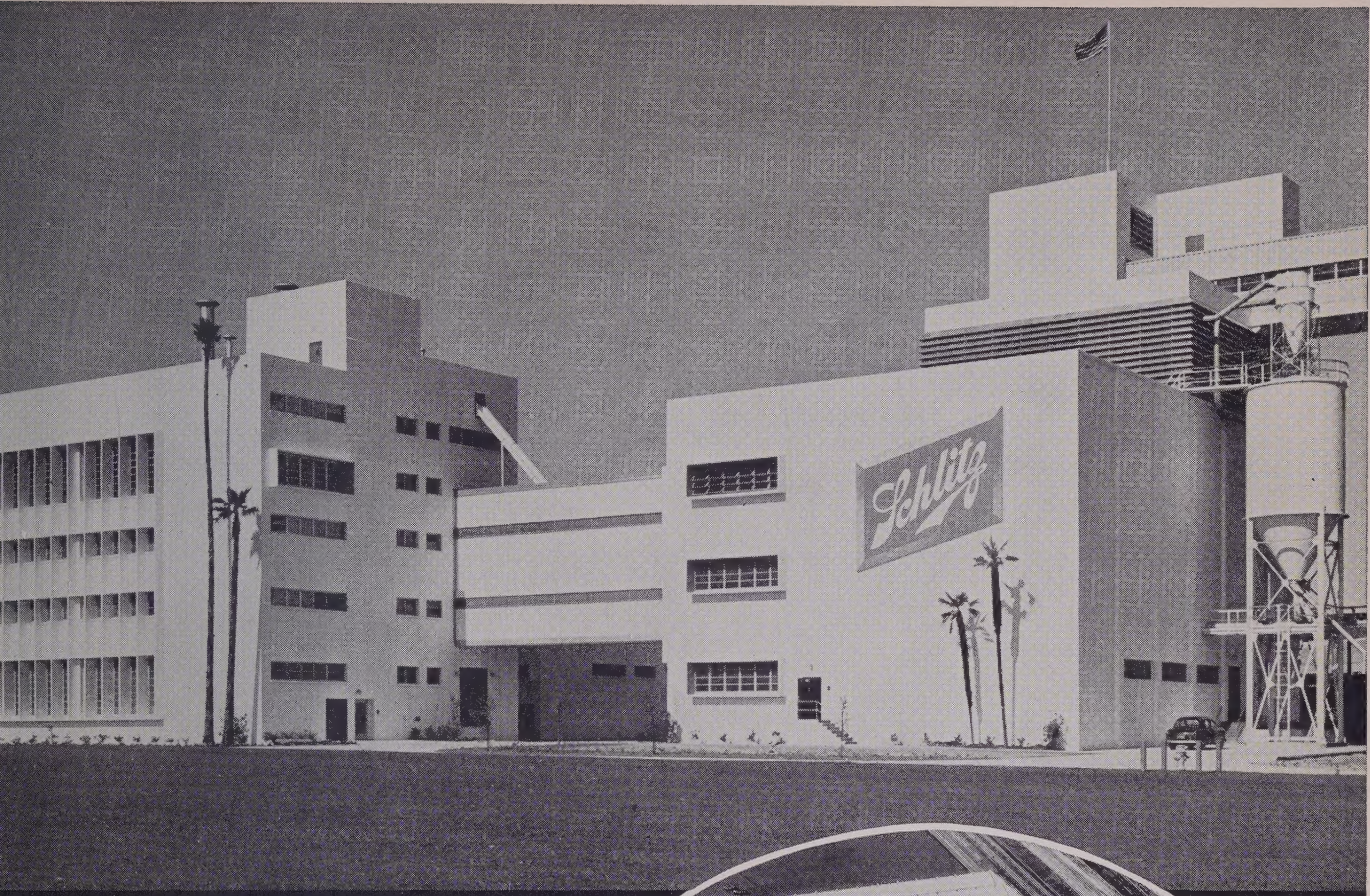
Webster BASEBOARD HEATING

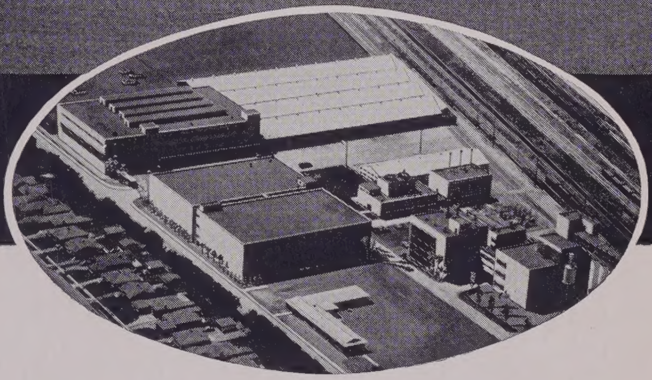
Darling Brothers Limited


DB
SHORT SPAN JOISTS
Write to Box 280, Montreal, for D.B. Short Span Joist Catalogue No. SDO-108
For larger spans, write for Catalogue No. SDO-110
STRUCTURAL DIVISION
DOMINION BRIDGE
COMPANY LIMITED
A proven type of steel bar joist, which has received acceptance by leading architects and contractors—designed to meet the requirements of modern roof construction.
D.B. Short Span Joists are easy to erect and permit the passage of conduits or pipework. Available at all Dominion Bridge plants—in depths of 8 inches to 16 inches and for spans up to 32 feet.
Other Divisions:
BOILER • PLATEWORK • WAREHOUSE • MECHANICAL
Plants at:
MONTREAL • OTTAWA • TORONTO • WINNIPEG • CALGARY • VANCOUVER
Assoc. Companies at:
AMHERST • QUEBEC • SAULT STE. MARIE • EDMONTON
In the Maritimes: Manufactured by ROBB ENGINEERING WORKS LIMITED and known as the "BLUENOSE" joist.

INDEX OF JOURNAL ADVERTISERS

PRINTED BY DAVIS PRINTING LIMITED, 30 DUNCAN STREET, TORONTO

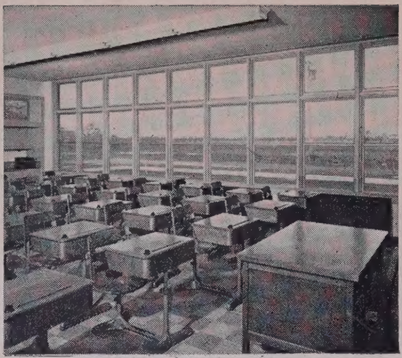




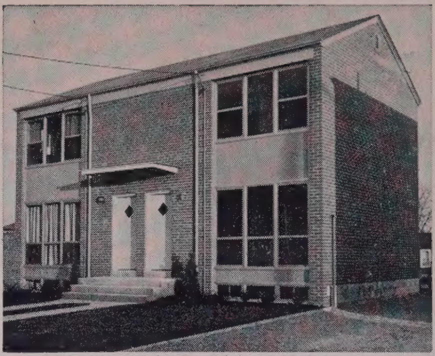
Schlitz Brewing Company, Van Nuys, California
Archts.—Harley, Ellington & Day, Detroit
Consltg. Struct. Engrs.—Brandow & Johnston, Los Angeles
Gen. Contr.—P. J. Walker Co., Los Angeles
Pozzolith Ready-Mixed Concrete supplied by Arrow Rock Co., Sun Valley, California



APARTMENTS: The Amesbrooke, Dorchester Street, West, Montreal, Quebec. Architects: Greenspoon, Freedlander & Dunne, Montreal.



SCHOOLS: St. Alfred's and Canadian Martyrs Separate Schools, St. Catharines, Ontario. Architect: Frank H. Burcher, Hamilton.



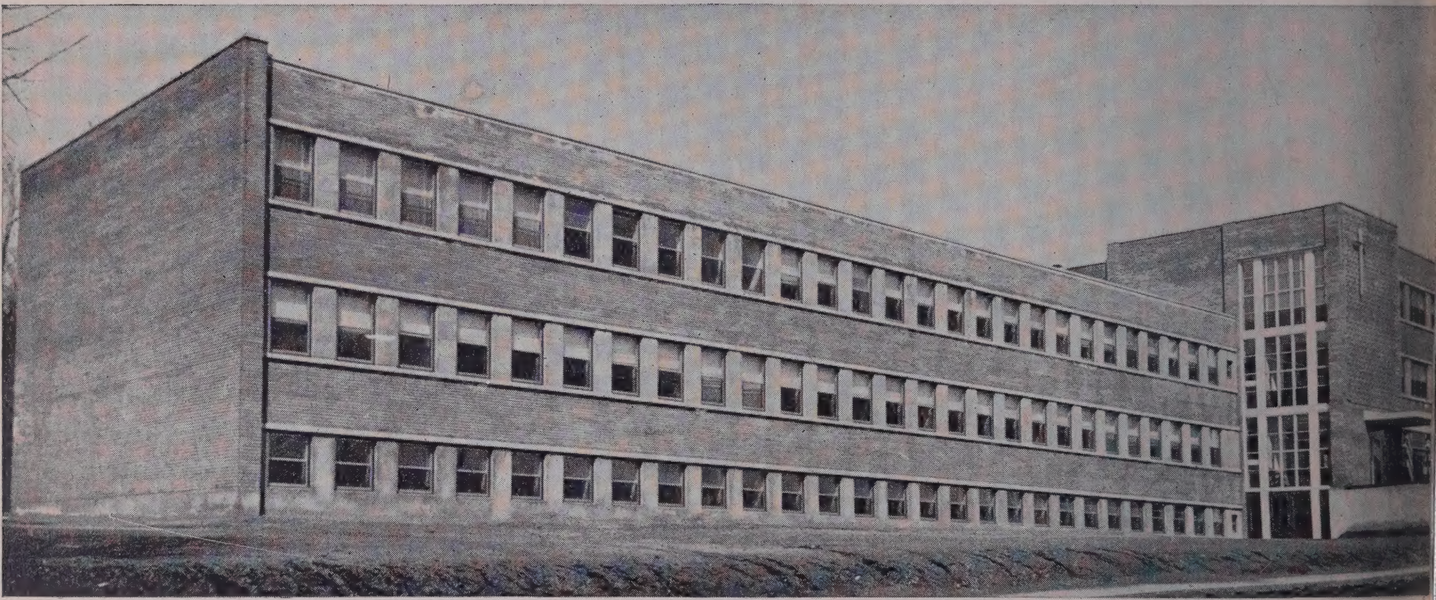
HOMES: Low rental houses, Weston, Ontario. Architects: Jackson & Ypes, Toronto.



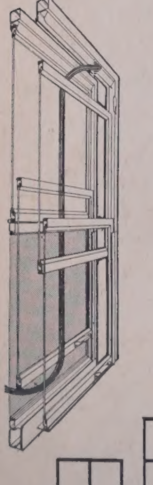
OFFICES: Modern office building, 30 Eglinton Avenue East, Toronto. Architect: Edward I. Richmond, Toronto.

Specified: RUSCO PRIME

The window with the most of the most-wanted features



HOSPITALS: L'Hôpital St. Catherine Laboure, Coaticook, P.Q. Architect: Rodolphe Lajoie, Montreal.

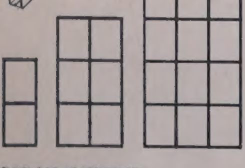


Canadian architects have been quick to appreciate the merits of Rusco Prime Windows.

During the past five years these windows with the distinctive tubular steel construction have been specified for and installed in almost every type of new building. SPECIFIED BECAUSE:

- **RUSCO means Fast, Easy Installation**—Rusco Prime Windows are fully pre-assembled, ready to install units. Glazed, finish-painted with baked-on enamel, fully weatherstripped and complete with wood casing or steel fins. Can be installed in a fraction of the time required for conventional windows.
- **RUSCO provides for Minimum Maintenance**—Hot-Dipped galvanizing, bonderizing and baked-on enamel finish make Rusco Windows extremely resistant to the ravages of corrosion and weather. No sash cords, weights, balances or chains to get out of order. Glass inserts are remov and interchangeable. Consequently "spares" may be stocked so broken replacement and other repair may be handled in maintenance shop.
- **RUSCO offers Desirable Exclusives**—Insulating sash (optic permits Magicpanel Ⓣ year 'round, rainproof, draft-free ventilation, red fuel consumption, makes air-conditioning far more efficient. Removable inserts simplify cleaning. Fiberglas screen cannot rust, rot, corrode, bur stain. Inserts slide smoothly, quietly in felt-lined channels.
- **RUSCO assures Remarkably Low Installed Cost**—Alth Rusco Prime Windows are a precision made quality product and p accordingly, because of the speed and ease of installation, and the e nation of field glazing and painting, the installed cost is usually less that of the cheapest windows obtainable.

Compare the end cost of Rusco Prime with that of any other window



DESIGN FLEXIBILITY

Another RUSCO Feature—

Rusco Prime Windows are made in a wide range of sizes, in 2-3 and 4 panel high units. They are easily joined in series with Rusco's streamlined non-load-bearing mullions.

RUSCO PRIME WINDOWS

(TUBULAR STEEL) (HORIZONTAL OR VERTICAL SLIDE)

A PRODUCT OF CA

THE F. C. RUSSELL COMPANY OF CANADA LIMITED
DEPT. A.J. 29, STATION "H", TORONTO 13, ONTARIO

DISTRIBUTORS

DAIGLE & PAUL LTD.
1962 GALT AVE.
MONTREAL, QUEBEC

MACOTTA CO. OF CANADA LTD.
85 MAIN ST. SOUTH
WESTON, ONTARIO.

DALE EQUIPMENT LTD.
1524 ERIN ST.
WINNIPEG, MANITOBA

WASCANA DISTRIBUTORS LTD.
1018 LANSDOWNE AVE.
SASKATOON, SASKATCHEWAN

CAPITAL BUILDING SUPPLIES LTD.
10,524-110TH ST., EDMONTON, ALTA.
also: 718-8TH AVE. W., CALGARY, ALTA.

SHANAHAN'S LTD.
FOOT OF CAMPBELL AVE.
VANCOUVER 4, BRITISH COLUMBIA